

JPRS-UHR-86-005

6 March 1986

USSR Report

HUMAN RESOURCES

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LABGR

DECREE ON FORMATION OF WAGE FUND PRESENTED

Moscow EKONOMICHESKAYA GAZETA in Russian No 49, Dec 85 p 18

[Text of decree on wage fund published in unattributed article entitled: "The Formation of the Wage Fund"]

[Text] The Commission for the General Management of the Economic Experiment has approved the "Model Statute on the Formation of the Wage Fund of the Ministry (Department), Association and Enterprise Working on the Basis of the New Methods of Management". In conformity with it, methods for the normative formation of the wage fund for branches of industry are being developed. In cases where individual changes or additions are introduced in the statute for a branch of industry that reflect the specific nature of the work of the industry, it is subject to the agreement of the USSR Gosplan.

The present Model Statute on the Formation of the Wage Fund of the Ministry (Department), Association and Enterprise provides for a procedure for the determination of the dimensions of the wage fund during 1986-1990 for the ministry (department), association and enterprise working on the basis of the new methods of management.

1. The wage fund for basic activity personnel* in accordance with the plan of a ministry (department), association and enterprise for the next year is formed from two parts: The base wage fund and the sum of the increase (decrease) of the fund calculated on the basis of the norm for every percentage (ruble) of growth (reduction) of the volume of production (work) in accordance with the indicator accepted for the calculation of labor productivity.

In some branches of industry, the wage fund can also be formed in accordance with the norm of wages per unit of production in physical terms (work) or in accordance with the norm of wages per ruble of production accepted for the calculation of labor productivity.

2. The norms are stipulated in the structure of the control figures and are

*) Here and subsequently "basic activity personnel should be considered to include: In industry--industrial production personnel, in transportation--personnel employed in transportation, etc.

communicated to the ministries (departments), associations and enterprises in advance, before the beginning of the composition of the five-year plan. In necessary cases, clarifications may be introduced in the mentioned norms during the confirmation of the five-year plan. The norms established in the five-year plan are not subject to reconfirmation. The norms are established proceeding from the necessity of receiving in existing enterprises, as a rule, the entire increase in the volume of production (work) by virtue of an increase in labor productivity and the observance of an economically justified correlation between the growth of labor productivity and the growth of the average wage.

A ministry (department) may establish differentiated norms for the associations and enterprises within its jurisdiction, proceeding from the calculated wage fund for the ministry as a whole, calculated on the basis of the established norm.

3. The base wage fund of an association and enterprise for the development of the annual plans is the wage fund of the basic activity personnel as per account of the (still to be completed) preceding year, increased by the sum of the relative economy of the wage fund or reduced by the sum of the excess of the wages actually charged against the plan wage fund in conditions of the non-fulfillment of the plan in terms of production (work).

Moreover, the base wage fund of the basic activity personnel of an association and enterprise as per account for the (still to be completed) year preceding the transition to the new methods of management is reduced additionally by the sum of non-productive payments at a rate of no less than 50 percent of the sums paid in the form of additional payments for a deviation from normal conditions of work, and at the rate of all additional payments for work during overtime (with the exception of cases of the permission of this work by special decisions of the directive organs) and all payments of full-day and intra-shift idle times.

For an association or enterprise that went over to the new methods of management prior to 1986, in which non-productive payments were not fully or partly excluded from the base wage fund at the moment of the transition to the economic experiment, the indicated expenditures are excluded in the formation of the base wage fund for 1986.

4. The base wage fund of an existing association and enterprise is determined more precisely with regard to one of two conditions:

4.1. The base fund is preserved if the growth of labor productivity according to the plan for the year exceeds or equals the actual average annual labor productivity growth rate for 1981-1985; in so doing, the labor productivity growth rates according to the plan for the year are determined as average annual growth rates, proceeding from the actual rates from the beginning of the 12th Five-Year Plan and the task for the year being planned.

The base wage fund is reduced for every point of reduction of labor productivity compared to the actual average annual labor productivity growth rate at a rate equal to the magnitude of the established norm for the increase of the wage fund.

For individual production associations and enterprises, which during 1981-1985 put significant new production capacities in operation, the ministry establishes the dimension of labor productivity growth, in the presence of which the base wage fund is preserved, at the level of the actually developed average annual growth rates of this indicator for the years 1981-1985 for the branch (subbranch) of industry as a whole. The list of such associations and enterprises is established by the ministry (department) during the confirmation of the annual plans.

4.2. The base fund is preserved if labor productivity growth for the year according to the plan for the year exceeds or equals the task of the five-year plan for the corresponding period with a growing result; in so doing, the labor productivity growth rates according to the plan for the year are determined proceeding from the actual rates from the beginning of the 12th Five-Year Plan and the task of the year being planned.

The base wage fund is reduced for every point of the reduction of labor productivity as against the task of the five-year plan for the corresponding year from the beginning of the five-year plan at a rate equal to the magnitude of the established norm for the increase of the wage fund.

The condition for the preservation of the base wage fund according to the rates of labor productivity growth is established by the ministry (department) during the confirmation, to the association or enterprise, of the plan tasks for the 12th Five-Year Plan.

The procedure for decreasing the base wage fund stipulated by point 4 is not applied to experimental enterprises and to enterprises for whom a task with respect to labor productivity growth is not established in the five-year plan.

5. The base wage fund, which is calculated on the basis of expected fulfillment, is defined more precisely on the basis of the data of the annual account. The distribution of the annual base wage fund by quarters is effected independently by an association or enterprise and after more precise definition on the basis of the data of the annual account is not subject to change.

In the distribution of the annual base wage fund by quarters, the association or enterprise must proceed from the requirements of observing, in every quarter, economically substantiated correlations between the growth of labor productivity and the growth of the average wage. In cases when in the plan for this or that quarter the growth of the average wage outstrips the growth of labor productivity, the base wage fund is established at a level equal to the actual wage fund for the corresponding quarter of the previous year for the deduction of non-productive expenditures for wages in accordance with point 3 of the present Statute.

6. An additional wage fund is allotted to a ministry (department), association and enterprise realizing the introduction and exploitation of new capacities. The indicated additional fund is taken into account separately in the plan for labor of the association or enterprise and included in the composition of the wage fund for basic activity personnel.

The lists of the enterprises and projects (capacities) being introduced, with indication of the specified dates of their introduction, are confirmed by the ministry (department) following the established procedure, taking into account the norms of the duration and the levels of introduction stipulated by the decree of the USSR Gosplan of 10 May 1984, No 95, and supplements to it.

To an association or enterprise, for which the standard specified dates for the introduction of new basic production capacities have expired, an additional wage fund earmarked for the payment of the labor of workers engaged in the introduction of these capacities is not allotted. The planning of the wage fund for the indicated associations and enterprises in the new calendar year is effected following the procedure established for existing associations and enterprises.

7. The general wage fund for a ministry (department), association and enterprise is determined for accounting purposes as a whole for the year and by quarters as the sum of the wage fund of the basic activity personnel, the wage fund for non-basic activity personnel and non-staff employees formed in accordance with the norm, the wage fund for workers of enterprises and projects being newly put into operation, and the wage fund for workers in science and scientific services.

8. The ministry (department) forms a reserve for the wage fund in accordance with established procedure. For the determination of the reserve for the wage fund for basic activity personnel for the plan period for the ministry (department) as a whole, the base wage fund is calculated as the sum of the base wage funds of the associations and enterprises. The total reserve of the wage fund of a ministry (department) is determined by summing up the reserve for the personnel of basic activity and non-basic activity and the unutilized reserve.

An additional wage fund may be allocated from the reserve to an association or enterprise in case of the temporary deterioration of the indicators of the work of the association or enterprise during the period of the introduction of new and highly-efficient technology, structural advances in production, the reduction of raw material resources, natural calamities, extra-plan stoppages of equipment for reasons not depending on the production associations and enterprises.

In these cases, the ministry (department) allots an additional wage fund without a change of the established norm to the association or enterprise. The indicated sum of the wage fund is taken into account separately in terms of the basic activity personnel, is not included in the base wage fund of the association or enterprise, and is returned to the reserve of the ministry (department).

Not excluded from the base fund are sums allotted from the reserve of a ministry (department) for the introduction of advantages and privileges in terms of the payment of labor in accordance with the decisions of the directive organs, as well as sums earmarked for payments of a long-term character.

A ministry (department) may utilize the wage fund reserve for the payment of the overexpenditure of the wage fund of an association and enterprise and its

compensation in accordance with established procedure. In the case of the compensation of the overexpenditure of the wage fund by an association or enterprise in the course of the year, the sums earlier allotted by a higher organization from the wage fund reserve are restored to the reserve of the ministry (department) from the moment of its development.

9. Control over the expenditure of the wage fund by an association or enterprise is realized through institutions of the USSR Gosbank on a quarterly basis.

Funds for wages are made available to an association or enterprise for basic activity personnel, proceeding from the base wage fund established for the quarter, increased (reduced) by the sum of the growth (reduction) of this fund, calculated on the basis of the established norm for the growth (reduction) of the wage fund and the actual increase (reduction) of the volume of production (work) for the accounting quarter in terms of the indicator accepted for the calculation of labor productivity. The scale of the funds for wages for basic activity personnel due to an association or enterprise is defined more precisely on the basis of the results of their work for the year.

10. On the basis of the present Model Statute, the ministry (department) develops and confirms a Statute on the Formation of the Wage Fund for the Association and Enterprise.

Additions and changes, which do not result from the present Model Statute, may be introduced by a ministry (department) in the industrial branch statute by consent with the USSR Gosplan.

8970

CSO: 1828/55

LABOR

LABOR SKILLS AND WAGE RATES EVALUATED

Moscow EKONOMICHESKIYE NAUKI in Russian No 11, Nov 85 pp 58-66

[Article by Yu. Ananyeva, candidate of economic sciences: "Evaluation of Complexity of Labor and Its Pay"]

[Text] The efficiency of wage differentiation depending on the complexity of labor and the observance of the principle of equal pay for labor of equal complexity following from the requirements of the law of distribution according to labor depend to a decisive degree on a scientifically substantiated construction of wage rates and skills guides and wage scales (system of wage rates), which are tools for the calculation of the complexity of workers' labor.

The problem lies in seeing to it that, on the one hand, an increase in wage rates corresponds to the growing complexity of labor and, on the other, that wage differentiation according to this factor occurs within the framework of an objective basis--quantitative differences in the complexity of labor. The latter requirement follows from the economic essence of wages as part of the necessary product distributed in accordance with the quantity and quality of workers' labor, that is, with its length, intensity, complexity and conditions, as well as with the results of their labor.

It is well known that the categories "complexity of labor" and "simple" and "complex" labor are most important in the labor theory of value. According to K. Marx's teaching, the measurement of value, or socially necessary expenditures of labor on the production of goods, is based on expenditures of simple labor. Complex labor appears as "simple labor raised to a power or multiplied...", the result of the functioning of which is value greater in magnitude than that created during the same time by simple labor. The solution of the problem of reduction of labor--reduction of complex labor to simple labor--in the socialist economy is inseparably connected with such national economic tasks as the measurement of the volume of national income, whose growth is determined, in particular, by an increase in the degree of complexity of labor, measurement of labor productivity, calculation of the national economic labor intensiveness of output as the base for price setting and so forth, as well as with the tasks of substantiation of wage differentiation according to complexity.

The establishment of differences in the complexity of labor is the prerequisite for a scientifically substantiated wage differentiation. This requires the accomplishment of two interconnected tasks, that is, unification of types of labor of different complexities into groups relatively uniform in the level of complexity (that is, their grouping on the basis of approximately equal complexity) and establishment of quantitative differences in the levels of labor complexity according to groups. The object of the first task is to determine groups of jobs with potentially equal pay (wage rates) and of the second, to establish, on the basis of the obtained quantitative differences in the complexity of labor, ratios in its pay according to groups. To accomplish these tasks, wage rates and skills guides, in which jobs and workers are distributed according to groups of complexity (that is, according to wage categories), and wage scales, which determine the quantitative ratios in wage rates according to categories of complexity, are worked out.

A fuller and more objective recording of differences in the complexity of labor presupposes an overall solution, first of all, of methodological problems of construction of wage rates and skills guides and wage scales in contrast to the existing practice, when wage rates and skills guides are worked out to a significant degree autonomously. The existing methodological approach to the construction of wage rates and skills guides is based on an analytic evaluation of the complexity of labor, which has been developed and often corrected by the Scientific Research Institute of Labor. At present the construction of wage scales is not based to a sufficient degree on a profound methodological elaboration of problems concerning a quantitative commensuration of differences in the complexity of labor and, essentially, is carried out empirically. The latter aggravates the importance of the establishment of quantitative differences in the complexity of labor and of the reduction of complex labor to simple labor.

For a number of years the Scientific Research Institute of Labor jointly with sectorial organizations of ministries and departments has conducted research on problems concerning the evaluation of the complexity of labor (including its reduction) for the purpose of improving the rating of labor (conferment of skill categories and establishment of the level of their pay) and its instruments--the unified wage rates and skills guide of workers' jobs and occupations according to types of production and jobs and presently existing wage scales according to groups of sectors and types of jobs.

The rating of most jobs and workers of different sectors and types of production according to the unified wage rates and skills guide occurs within the limits of six categories. At the same time, it is assumed that similar categories of jobs pertaining to different sectors and types of production point to their equal complexity, whose logical consequence should be the establishment of approximately similar wage rates for equally complex labor. However, this does not occur in practice, owing to the fact that four six-category wage scales differing in the initial level of wage rates, intercategory ratios and ranges of rates of extreme categories (1:1.58; 1:1.71; 1:1.8; 1:1.86) are in effect in industry and construction. The application of different base wage rates, as well as scales, approximately equal in national economic significance and general sectorial working

conditions in sectors leads to differences in the pay for jobs of equal complexity. A varying rigidity of rating (conferment of different categories on jobs of equal complexity pertaining to different sectors) characteristic of a number of issues of the unified wage rates and skills guide, as well as the overstatement by enterprises of rating categories as compared to those envisaged by the wage rates and skills guide, is the consequence of this.

It seems that for a greater unification of wage scales, which makes it possible to improve both the rating of workers' labor and their pay, there is a need to change over to a unified wage scale with a significant reduction in the number of initial wage rates of the first category according to sectors (types of production and jobs) for normal working conditions. Taking into consideration the existing connection between the rating of labor and its pay, during an investigation of problems concerning the further improvement in methods of evaluating the complexity of labor two interconnected goals were set, that is, refinement and further intensification of methods of intersectorial comparisons of jobs according to complexity with reference to the development of the unified wage rates and skills guide and determination of the place of sectors (types of production) on the unified wage scale.

In accordance with these goals the following became objects of improvement: the analytic method of evaluating the complexity of labor based on a direct analysis of the technical and organizational content of work according to a specific system of factors, as well as the indirect method of evaluating the complexity of labor, which is reduced to an evaluation of workers' skills as the indicator of the complexity of the jobs performed by them; otherwise--the method of training time (period).

When improving the analytic method of evaluating the complexity of jobs,² we proceeded from the concept of the complexity of labor as its objective characteristic, which expresses the content of the process of labor and is manifested in demands on the worker's skills. In this definition of complexity stress was placed on the content of labor, that is, on the technological interpretation of complexity predetermining the scheme of evaluation criteria (factors), which should reflect all the elements of the process of labor and its organization having an effect on the complexity of labor.

With respect to the worker the complexity of the job performed by him is manifested in specific efforts aimed at the attainment of the set technological goal and is determined by it. The complexity of a job depends on a large number of diverse factors, which characterize the process of labor, that is, complexity of the applied equipment, its control and technical servicing and of the utilized tools, devices and instruments; complexity of subjects of labor (form, size and placement of the machined surface, configuration, weight and difficulty of access of places for machining, assembly, repairs and so forth); complexity of technological regimes, of the calculations performed by the worker and of the incoming and processed information on the course of processes; diversity and degree of repetition of individual operations and actions, which characterize the breadth of the worker's occupational specialization; degree of the worker's independence during job performance and so forth. These factors interact and a specific

combination of factors is inherent in different organizational and technical conditions of job performance.

For a full and comprehensive description of the complexity of various types of labor the scheme of evaluation factors should contain all-around evaluation criteria acceptable for all types of jobs, by means of which it is possible to ensure the comparability of different-quality jobs. In this connection it seems that the scheme of complexity factors should logically follow from the concept of the process of labor as man's expedient activity aimed at changing the subject of labor by means of implements of labor and, therefore, built on the basis of the unity of basic aspects of labor--implements and subjects of labor and the worker's most expedient activity in specific organizational forms of job performance. The form of labor organization at a specific work place determines the degree of the worker's specialization, or the breadth of the set of operations performed by him, their repetition and the degree of the worker's independence in the technological process, which also characterizes a particular level of complexity.

Responsibility for the possible material damage and for the health and life of the worker and those around him is an important independent criterion of the complexity of labor. The existence of responsibility makes additional demands on the worker's skills.

In our opinion, the indicated three groups of factors of evaluation of the complexity of labor--technological, organizational and responsibility--are applicable to most jobs and can ensure a multifaceted description of their complexity. At the same time, in the national economy there is a limited number of jobs, the complexity of performance of which is aggravated by working conditions, characteristics of technology and other factors. It would be incorrect to ignore the indicated factors during an evaluation of complexity, because they determine the additional demands on workers' skills. For example, they include the assembly of high-rise structures and complex repair jobs at high-rise installations; jobs in a limited closed space--within reservoirs, capacities and units; jobs accompanied by increased neuropsychic loads and requiring a big mental strain and a quick reaction to incoming information (during the control of transport facilities, in aviation and railroad transport and so forth). Such jobs necessitate the inclusion, along with the mentioned factors, of specific factors in the complexity of labor in the scheme of evaluation factors.

Thus, the unified scheme of factors in the evaluation of the complexity of workers' labor includes the following:

1. Technological:
complexity of control (servicing and use) of implements of labor;
complexity of subjects of labor;
complexity of the technological (working) process.
2. Organizational:
breadth of the set of performed operations (jobs);
the worker's independence in the process of job performance.

3. Responsibility:
material;
for health and life.

4. Specific

In our opinion, the determination of the complexity of jobs according to the proposed unified scheme of evaluation factors will make it possible to ensure a certain comparability of different-quality jobs from the point of view of the technology of their performance. To attain an even higher degree of comparability of technologically different jobs, the evaluation of their complexity should also be made according to types of labor processes grouped depending on the level of labor mechanization, that is, manual, machine-manual, machine, automated and apparatus labor--similarly to the technical standardization of labor according to these five types of processes.

The determination of the number of degrees of job complexity expressed by evaluation factors (degrees of the complexity of factors) forming part of the unified scheme, as well as the development of criteria (parameters), that is, characteristics of these degrees, according to types of labor processes, is the next stage in the evaluation of job complexity. This is due to the fact that in accordance with the method of evaluation of complexity the category of a job is determined by the combination of the degrees of complexity of factors characterizing its technical and organizational content. Six degrees of complexity were established according to evaluation factors by analogy with the number of wage categories envisaged by the wage rates and skills guide.

Specifications of the degrees of complexity (criteria) for 33 industrial and national economic sectors, including for 63 types of production and jobs, were developed according to each factor within the framework of each of the indicated five types of labor processes.³

Essentially, complexity parameters are the basis for the entire methodological apparatus of the analytic evaluation of jobs, because the grouping of jobs according to complexity (in conformity with the number of wage categories) is based on different combinations of the degrees of complexity of factors characterized by appropriate criteria.

Criteria represent a specific expression of complexity factors and make it possible to judge what increases the complexity of jobs as a whole. For example, the following are criteria of technological factors in complexity, in particular the complexity of implements of labor: degree of specialization, on which the breadth of occupational specialization of the workers servicing them depends; level of mechanization (automatic, semiautomatic, manual and mechanized) determining the volume of manual, machine-manual and machine elements of the labor process and the degree of participation of the muscular system, sensory organs and the nervous system in work; complexity of systems of control and regulation; complexity of structural and kinematic schemes of implements of labor (which is of great importance for the repair, adjustment and care of equipment); dimensions and capacity, which in a number of cases determine the degree of complexity of the control and servicing of implements of labor, as well as the degree of the worker's responsibility; number of

simultaneously serviced similar or dissimilar units of equipment if the combination of their servicing causes an increase in the complexity of labor and so forth.

The following are criteria reflecting the effect of organizational factors in complexity: number of technologically connected operations and jobs performed by the worker; degree of repetition and variety of operations and jobs; degree of the worker's independence during job performance; nature of working instructions concerning the management of the technological process and their complexity; performance by the executor of functions of guiding workers of lower skill levels, the nature of guidance and the number of guided workers and so forth.

The effect of the responsibility factor on the complexity of jobs is determined by the following: uniqueness and value of implements of labor; value of subjects of labor and the provision of production with them (unlimited, limited, strictly limited and so forth); place of a given operation (job) in the general technological chain of production and the degree of effect of other production links (sections) on the job; presence (absence) of subsequent control of the results of the executor's work; nature of possible material damage to production from equipment downtime, rejects in work and other disruptions in the normal course of processes; presence of technological processes and specific properties of subjects of labor dangerous to the life and health of the executor and the people around him; nature of possible physical injuries and their severity; type and length of the possible loss of work fitness; number of individuals, who are in the zone of danger, which can arise during a deviation from the normal course of the technological process at a given work place and so forth.

In conformity with the cited criteria and criteria of other factors characteristics of the degrees of complexity of factors, on the basis of which it is possible to make an evaluation of the complexity of specific jobs, were developed according to types of labor processes. For the purpose of simplifying and formalizing the evaluation of job complexity, verbal characteristics of the degrees of complexity were converted into standard units--points (see below).

Objectively, however, the technological approach to the evaluation of the complexity of labor based on an analysis of the content of specific types of jobs cannot fully eliminate their incomparability, nor does it make it possible to commensurate the differences in complexity, because the criteria of complexity of factors are of different qualities and cannot be expressed by a measurer alone. For these reasons at the stage of development of intersectorial criteria of the degrees of complexity of factors and their coordination with wage categories the analytic method should be supplemented with the indirect method of evaluation of job complexity by means of the indicator of workers' skills. This indicator, on the one hand, makes it possible to divert our attention from specific forms of labor, which are to difficult to compare in intersectorial terms and, on the other, contains potentials for a quantitative expression of differences in skills, because it is measurable by the time of workers' training for the performance of jobs of a specific complexity. The use of the indirect method makes it possible to

determine the upper limit of the rating of jobs in various types of production, that is, the maximum wage category, as well as to construct a point evaluation of the degrees of job complexity according to factors adopted by the analytic method. We assume that the determination by means of the method of the time (period) of workers' training of only the upper limit of the rating of jobs is quite sufficient for an evaluation of the complexity of jobs. Intermediate rating categories can be established by the analytic method by means of a combination of the degrees of complexity of factors.

The application of the method of the time (period) of training for the indicated purposes is based on the concept of simple and complex labor as types of labor of different degrees of workers' training and education and on the commensurability of the complexity of jobs and workers' skills. In accordance with such a concept differences in the complexity of labor are identical to differences in workers' skills. Therefore, when intersectorial comparisons of complexity are made, jobs differing in their technological content are considered equally complex if they are performed by workers of approximately equal skills. Hence the task of commensurating the complexity of different types of labor is reduced to the measurement of the skill level of workers performing specific sectorial jobs. At the same time, skills of the average worker, whose individual abilities and qualities are leveled and not manifested in the mass, are implied.

It is well known that the worker's skills as the totality of knowledge, ability and labor experience depend on the length of his training. As a rule, as the level of general education and special training and the length of practical work increase, the wage category--the skill indicator--also rises. On the basis of this dependence an evaluation of the skills of workers of various levels of training in mass and key occupations in 33 sectors and 63 types of production involving about 32,000 people was made.

We assume that, when determining the length of the time of workers' training according to occupations and wage categories, general education, special training and the length of practical work necessary for the acquisition of labor skills should be taken in socially necessary (normative) values. At present, however, such standards of training periods do not exist in a sufficient volume. With rare exception the unified wage rates and skills guide does not contain in wage rates and skills descriptions of workers' occupations specific directives as to the demands on the level of general and special education that should be placed on workers of specific occupations and categories. Such demands with respect to special education are now recorded for no more than 400 occupations out of the total number of about 6,500. The periods of workers' training established for educational institutions of the vocational and technical education system cannot yet be considered standard for most workers, because this system does not meet one-half of the need for skilled workers. Most of them are trained directly on the job, where training periods fluctuate significantly.

The imperfection of the indicated standard base necessitates the use of averaged actual periods of training of workers in key occupations in different types of production, although this is associated with certain assumptions,

owing to which the results of intersectorial comparisons of the complexity of labor through training periods are approximate.

When determining the total periods of workers' training, general and specialized education as the basis for the acquisition of skills are taken into consideration in a full volume (the latter includes training in the system of vocational and technical educational schools or directly on the job) and the length of service necessary for the acquisition of skills, in the volume of the total length of service on the date of conferment of a specific wage category, because this length of service characterizes the length of the worker's advancement toward the attainment of this category, since it includes the work time in all previous categories, when labor skills are accumulated.

Total training periods differentiated according to different levels of workers' skills serve as the basis for calculating coefficients of labor complexity characterizing quantitative differences in complexity levels. The indicated coefficients are determined by the ratio of averaged training periods for workers in key occupations according to categories to the unified training period for workers in simple labor (that is, first-category workers) taken as 8.5 years (8 years of general educational training and 0.5 years of service, including individual-brigade training, for the consolidation of initial-level skills). The need for the establishment of a unified training period for workers in simple labor is connected with the fact that complexity coefficients calculated on the basis of different (throughout sectors) periods of training for labor of a lower-skill level are not comparable sufficiently.

Coefficients of the complexity of labor of workers in different sectors (types of production) were determined by means of the described method. A comparison of coefficients of the complexity of labor of workers of higher skill levels in sectors (types of production) is of the greatest interest, because intersectorial comparisons are most indicative in jobs of higher degrees of complexity. An analysis of complexity coefficients makes it possible to judge the degree of correspondence of the level of workers' skills to their actual rating, to forecast the distribution of sectors (types of production) on the unified wage scale and to construct a point evaluation of the analytic method (see table 1).

If we assume that the highest coefficient of labor complexity in the radio industry--3.47--corresponds to the highest--sixth--category of a six-category wage scale, one category is conventionally evaluated at 0.58 units of complexity (3.47:6). Therefore, the greatest deviation of the coefficient of labor complexity in light industry from the highest complexity coefficient in the radio industry, that is, 1.45, indicates that fluctuations in the rating of equally complex jobs in various sectors reach 2.5 categories (1.45:0.58). Practice confirms this. This means that the following can be considered the highest as (1.45:0.58).

Practice confirms this. This means that the following can be considered the highest ca in sectors with a deviation ranging from 0.58 to 1.16 units (0.58X2); fourth category, in sectors with a deviation exceeding 1.16 units; sixth category, in sectors with a deviation of up to 0.58 units, which can be ignored.

Table 1. Distribution of Sectors (Subsectors) According to Coefficients of Complexity of Labor of Highly Skilled Workers

No in or- der	Sectors (Subsectors)	Coeffi- cients of labor com- plex- ity	Deviation from high- est com- plexity co- efficient (standard units of complexity
1	Radio industry	3.47	-
2	Production of art and jewelry articles	3.40	0.07
3	Subway	3.33	0.14
4	Aviation industry	3.26	0.21
5	Electric power engineering	3.20	0.27
6	Production of medical instruments and equipment	3.19	0.28
7	Electronic industry	3.12	0.35
8	Machine building and metalworking as a whole*	3.10	0.37
9	Chemical and petroleum machine building	3.08	0.39
10	Civil aviation	3.06	0.41
11	Railroad transport	3.05	0.42
12	Ferrous metallurgy	3.04	0.43
13	Machine tool building and tool industry	3.04	0.43
14	Construction of subways, tunnels and special- purpose underground installations	3.01	0.46
15	Extraction and enrichment of building materials	2.96	0.51
16	Instrument making	2.84	0.63
17	Motor vehicle industry	2.78	0.69
18	Gas industry	2.74	0.73
19	Communication	2.71	0.76
20	Petroleum extracting industry	2.69	0.78
21	Petrochemical industry	2.64	0.83
22	Peat industry	2.62	0.85
23	Electrical engineering industry	2.62	0.85
24	Construction	2.58	0.89
25	Chemical industry	2.56	0.91
26	Nonferrous metallurgy	2.55	0.92
27	Chemico-pharmaceutical industry	2.54	0.93
28	Coal pits	2.48	0.99
29	Coal mines	2.42	1.05
30	Food industry	2.40	1.07
31	Textile industry	2.33	1.14
32	Geological survey and topographic-geodesic work	2.05	1.42
33	Light industry	2.02	1.45

*In our survey it includes the following: electrical engineering, machine tool building and tool industry, instrument making, motor vehicle industry, chemical and petroleum machine building, electronic industry, radio industry, aviation industry and production of medical instruments and equipment.

Accordingly, in the cited series of distribution of complexity coefficients sectors with the 1st through 15th position should be classified with the group of sectors with the highest sixth category; sectors with the 16th through 31st position, with the highest fifth category; sectors from the 32d through the 33d position, with the highest fourth category. Essentially, such a distribution of sectors is their placement on the unified six-category scale meeting the need for the observance of intersectorial unity in the rating of equally complex jobs. However, when the six-category scale is retained as a gage, the maximum rating categories--fourth and fifth--for a number of sectors (types of production), undoubtedly, narrow the range of rating of occupations and create difficulties in material incentives for an improvement in the skills of workers in second and, especially, third groups of sectors. Therefore, if we analyze the possibilities of introduction of a unified wage scale, from the position of ensuring intersectorial unity in wage differentiation in accordance with the complexity of labor and from the position of social consequences of a more rigid rating of workers in sectors, in which fifth and fourth categories will be the maximum, the variant of the eight-category wage scale seems more correct. In this case second and third groups of sectors can occupy seven and six of its categories respectively.

The introduction of a unified eight-category wage scale presupposes a fundamental revision of the unified wage rates and skills guide and improvement in the entire wage-rate system. Therefore, it can be discussed only for a certain long-term period. At present a changeover to the unified six-category wage scale is realistic. On its basis the distribution of sectors in our example was made with reference to six categories.⁴ Of course, such a distribution of sectors is especially conditional, because within sectors wage rates are fixed for types of production and jobs in accordance with the structure including 218 types of production and jobs adopted by the unified wage rates and skills guide. The distribution of sectors presented here is of methodological importance and, along with this, presupposes the evaluation of jobs in terms of types of production. The results of evaluation of jobs in 63 types of production served as the basis for the establishment of upper limits of the rating of key jobs in each of the types of production taken into consideration. For example, the sixth category is the maximum category of the rating of jobs in nonferrous metalworking by pressure and of jobs in the production of synthetic diamonds and diamond products, the fifth category, of jobs in cold stamping and the fourth category, of jobs in sewing (in mass production). These limits serve as a certain guideline in the establishment of the degrees of technological factors in complexity as main evaluation factors. For example, the complexity of jobs in the sewing industry should be evaluated by four degrees, in welding production, by six degrees and so forth.

In accordance with the above-cited arguments the obtained ratios in complexity for sectors and types of production can be considered, with a certain degree of allowance, quantitative differences in complexity and can serve as a certain guideline during the construction of parameters of a unified wage scale and during the intersectorial differentiation of base wage rates.

The point evaluation of the analytic method as a tool of formalization of the evaluation process is also constructed by means of the method of training time (period). Such an evaluation is mandatory during the determination of the category of job complexity, because it facilitates the evaluation process. The point system is based on the proportions of complexity factors (that is, their relative significance), on the complexity range, within the limits of which the evaluation is made, and on the introduction of a conditionally adopted number of points for an evaluation of simple labor.

As is admitted by most Soviet and foreign specialists, the determination of the significance of complexity factors lends itself to a scientific substantiation least of all, because it pertains to the area of social evaluations and is the result of a logical analysis and an expert examination. In accordance with this the proportions of factors in the indicated five types of labor processes were determined in an expert manner.

Expert proportions point to the priority of technological complexity factors, whose significance increases as the level of labor mechanization rises. In accordance with this the proportions of the subfactors "complexity of control (servicing and use) of implements of labor" and "complexity of the technological (working) process" increase. Conversely, the values of the subfactor "complexity of subjects of labor" diminish, because, as the level of labor mechanization rises, the direct contact between workers and subjects of labor decreases and in automated and apparatus processes is essentially absent.

Table 2. Proportions of Factors in Labor Complexity According to Types of Labor Processes, %

Factors in Evaluation of Labor Complexity	Types of Labor Processes				
	man- u- al	ma- chine- man- u- al	ma- chine	auto- mated	ap- pa- rat- us
Technological	52	57	60	64	68
complexity of control (servicing and use) of implements of labor	20	25	30	36	38
complexity of subjects of labor	15	13	8	--	--
complexity of the technological (working) process	17	19	22	28	30
Organizational	31	26	22	16	11
Responsibility	10	12	15	17	19
Specific	7	5	3	3	2
Total	100	100	100	100	100

The proportions of organizational factors in labor complexity diminish as there is a changeover from manual to other types of labor processes in connection with the fact that the range of performed operations is the widest in manual and machine-manual jobs. On the other hand, responsibility increases with a rise in the level of labor mechanization, because the worker

deals with expensive equipment that becomes more complicated constantly. As an expert examination has shown, specific factors are characteristic to a greater degree for jobs with a low degree of labor mechanization.

The point evaluation of degrees of job complexity according to factors is constructed in the range of the 1:3.10 ratio, where 3.10 is the value of the coefficient of complexity of the labor of highly skilled workers for machine building and metalworking as a whole sector, in which the most complex jobs, including highly complex jobs in the radio industry, are concentrated. The intermediate values of differences in the complexity of labor according to categories (complexity coefficients) in the indicated range of complexity were set in increasing order of their magnitudes from category to category at 25.4 percent ($3.10 \times 100 - 100$).

Wage categories	1st	2d	3d	4th	5th	6th
Complexity coefficients	1.0	1.25	1.56	1.95	2.43	3.10

A conditionally adopted number of points--200--for an evaluation of simple labor (of the first category) was introduced into the point system.

On the basis of the proportions of factors, complexity coefficients according to categories and the number of 200 points an evaluation of the degrees of complexity of factors in points according to five types of labor processes was made. For example, the values of points according to the organizational factor in complexity with reference to apparatus processes were as follows: for the first degree $200 \times 0.11 \times 1.0 = 22$ points (where 0.11, or 11 percent, was the proportion of the organizational factor in complexity; 1.0 was the base coefficient of complexity corresponding to the first category); for the second degree: $22 \times 1.25 = 27$ points; for the third degree: $22 \times 1.56 = 34$ points; for the fourth degree: $22 \times 1.95 = 43$ points; for the fifth degree: $22 \times 2.43 = 53$ points; for the sixth degree: $22 \times 3.10 = 68$ points.

For the determination of the categories of complexity of specific jobs, which received the total point evaluation according to different factors through the combination of their degrees expressed in points, a calculated sum of points according to categories uniform for all five types of labor processes was constructed.

Wage categories	1st	2d	3d	4th	5th	6th
Sum of points according to categories:						
from	--	201	251	313	391	487
to	200	250	312	390	486	620

The upper limits of total point evaluations according to categories were determined by the multiplication of the upper limit of the first category (200 points) by the corresponding coefficient of labor complexity; lower limits, on the basis of the maximum sum of points of the preceding category increased by one point. For example, the range of points for the second category is as follows: lower limit--201 points ($200+1$); upper limit--250 points (200×1.25). Thus, jobs included in the second category are evaluated within the limits of 201-250 points. The existence of the range of points for the establishment of

the category of job complexity makes it possible to classify a specific job with different (not similar) degrees of complexity according to factors (for example, third degree, according to the complexity of implements of labor; second degree, according to the complexity of subjects of labor; fourth degree, according to responsibility and so forth). An evaluation of the complexity of a specific job by single-order degrees according to all factors, for example, only second or only fourth, is merely a particular case. In practice, degrees of factors during an evaluation of the complexity of specific jobs, as a rule, vary.

We assume that the described methodological approach to the evaluation of the complexity of different-quality jobs and the approach to the distribution of sectors (types of production) on a single wage scale will serve to further improve the unified wage rates and skills guide of workers' jobs and occupations and the differentiation of wages according to labor complexity.

FOOTNOTES

1. K. Marx and F. Engels, "Soch." [Works], second edition, Vol 23, p 53.
2. This method was developed at the Scientific Research Institute of Labor and formed the basis for the existing methodology (See: "Metodicheskiye ukazaniya po razrabotke tarifno-kvalifikatsionnykh spravochnikov rabochikh" [Methodological Directives for Development of Wage Rates and Skills Guides for Workers], Moscow, 1979). Its improvement was due to the fact that the analytic method adopted by methodology was based on an evaluation of job complexity according to functions constituting the labor process (preparation for a job, servicing of a work place, calculations and management of a working process), as well as according to the factor of job responsibility, and did not always reach the goal. At the same time, when complexity was evaluated, the greatest significance was attached to the function of management of a working process. Owing to the incomparability of jobs different in the technology of performance, this required a more detailed differentiation and disclosure of the content of the labor process, which was not envisaged by methodology.
3. Criteria of the degrees of job complexity were developed by sectorial research organizations with reference to types of production and jobs characteristic for sectors. Subsequently, on the basis of sectorial criteria (parameters) of complexity the Scientific Research Institute of Labor determined intersectorial criteria according to five types of labor processes suitable for different sectors and types of production (jobs).
4. The same method is also acceptable during the distribution of sectors with reference to a different number of categories.

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CSO: 1828/68

LABOR

CHANGES IN MANAGEMENT OF 'LABOR BOOKS' REPORTED

Moscow KHOZYAYSTVO I PRAVO in Russian No 11, Nov 85 pp 83-87

[Consultation by V. Lazarev, deputy chief of the Working Conditions Department of the USSR Goskomtrud [State Committee for Labor and Social Problems] and merited jurist of the RSFSR: "Innovation in the Order of Labor Book Management"; first paragraph is KHOZYAYSTVO I PRAVO introduction]

[Text] A new edition of the Instructions on the Order of Labor Book Management at Enterprises and in Institutions and Organizations is to be put into effect as of January 1986. The editorial office turned to V. Lazarev, deputy chief of the Working Conditions Department of the USSR State Committee for Labor and Social Problems and merited jurist of the RSFSR, with a request to explain to readers the innovations introduced in the instructions. We are publishing a consultation on this subject.

The Instructions on the Order of Labor Book Management at Enterprises and in Institutions and Organizations was confirmed by the State Committee for Labor and Social Problems in coordination with the AUCCTU on 20 June 1974. (Footnote 1) (BYULLETEN' GOSKOMTRUDA, 1974, No 9).

With the aim of raising the educational significance of labor books in the matter of strengthening discipline and raising their role as a document, which characterizes the labor activity of Soviet man, the USSR State Committee for Labor and Social Problems in coordination with the AUCCTU has made changes and additions in the instructions and by its resolution No 252 of 2 August 1985 confirmed them in a new edition. (Footnote 2) (BYULLETEN' GOSKOMTRUDA, 1985, No 10). This resolution is to be put into effect as of 1 January 1986.

The basic provisions of labor book management order, which were in effect earlier, are retained. As before, labor books must be kept on all workers and employees who have worked in state, cooperative and public enterprises, institutions and organizations more than 5 days. The following information is recorded in labor books: last name, first name, and patronymic, education, profession, information on work, rewards, and awards. It is provided that in those cases when all pages in the "Information on Work" or "Information on Rewards and Awards" sections are filled up, labor books are supplemented with inserts. The instructions also provide for the existence of two kinds of labor books--the 1938 type (for workers and employees who came to work before 1 January 1975) and a new type (for those who came to work after 1 January 1975).

At the same time, the instructions have also undergone some changes. First of all, they were somewhat abridged by omission from them of some normative provisions, which are directly provided in resolution No 656 of the USSR Council of Ministers and the AUCCTU of 6 September 1973 "On Labor Books of Workers and Employees," which is in force at the present time without any changes. (Foot-note 3) (SP SSSR, 1973, No 21, p 115). Excluded from the 1974 instructions for this reason are questions of responsibility for organizing work in management of labor books and their prompt and correct filling out as well as the order of manufacturing labor books and supplying them to enterprises, institutions and organizations.

Along with abridgement, the text of the instructions was somewhat changed and supplemented in some cases. Let us dwell in more detail on these changes and supplements.

The 1974 instructions provided that entries in a labor book are to be made in purple ink. There is no such restriction now and entries may be made with a pen point or a ball-point pen and with black, blue or purple ink.

The earlier used provision on the necessity of a labor book owner to familiarize himself with every entry made in his book is retained in the new edition of the instructions. However, in some cases it was difficult to fulfill this requirement in practice. Therefore, the new edition of the instructions provide that, as an exception, enterprises, which are operating under conditions of territorial isolation, may familiarize workers with the entries that are made in labor books via correspondence by sending to book owners corresponding notifications with subsequent notation about this in a personal card (standard interdepartmental form No T-2, which was confirmed by the USSR TsSU [Central Statistical Administration]). Such permission is granted by ministries and departments of the USSR and councils of ministers of union republics in coordination with corresponding central committees and republic councils of trade unions.

The question on making corrections in information on work will be solved somewhat differently. According to the instructions in force earlier, corrected information on work should have fully corresponded to original order or direction, and in cases of their loss to another document of a given enterprise, institution or organization which confirmed the information on work (archive documents, pertaining to labor activity of workers and employees; personal cards; payrolls; personal accounts for wages; and so forth). The instructions now provide that corrected information on work, transfers to other regular work, and awards and rewards must fully correspond to original order or direction. In case an order or direction is lost or their discrepancy with actual work that was performed, correction of information is made on the basis of other documents which confirm performance of work that is not indicated in a labor book. Thus, the new edition, in the first place, broadens instances when corrections may be made in information recorded in a labor book and, in the second place, makes it possible to correct information on work even when entries in an order or direction do not correspond to the actual work that was performed.

Example: Ivanov was put on the staff by an order as a toolmaker, but actually for a period of several years he performed work as an electric welder, which is

confirmed by payrolls and other documents. In this case, despite the order, a corresponding correction may be made in his labor book: the entry "toolmaker" may be replaced with the entry "electric welder."

It must be stressed that such corrections in a labor book may be made only in instances when reasons for them appeared after 1 January 1986. Such corrections are impermissible for a period of work before 1 January 1986.

The instructions are supplemented with one more essential direction: if an entry was made in a worker's labor book with regard to dismissal from or transfer to other work, which was subsequently recognized as invalid, at his request a duplicate labor book is issued to him without such entry recorded in it. But this can be done only after a final examination of a given labor dispute in accordance with legislation in force. Thus, if a decision of a people's court, which found a dismissal illegal, is appealed by management to a court of higher level of authority, then the issuance of a duplicate will, of course, be premature.

The new instructions supplement and make somewhat more precise the "Recording of Information on Work" subsection. If formerly it was pointed out in a labor book: "Accepted or assigned such a position or work in such a shop or department," then as of 1 January 1986 it is necessary to point out in a labor book: "Accepted or assigned to such a shop, department, subdivision, sector or production facility with indication of their specific name as well as of the type of work, profession or position."

The entries with regard to work, profession or position, as before will have to be made for workers in accordance with the names of professions, which are indicated in the Unified Job and Wage Rates Classification Manual of Work and Professions of Workers and for employees in accordance with the names of positions indicated in the Unified List of Positions of Employees or in accordance with staff schedule. The innovation is that the information on changes and additions that is recorded in an established order in the aforementioned manual and in the Unified List of Positions of Employees or staff schedule will have to be brought to the attention of workers and employees by management, and after this the changes and additions must be recorded in their labor books (after issuance of a corresponding order or direction on a given question).

The "Recording of Information on Work" subsection was supplemented with some other new provisions. Thus, establishment for a worker of a second and a subsequent profession will now be noted in his labor book with indication of categories of these professions. For example, a second profession of an electric welder with the conferment of third category was established for a repairman. In this case it should be indicated in his labor book as follows: in column one of the "Information on Work" section--serial number of entry; in column two--date of establishment of second profession; in column three--"Second profession of an electric welder established with the conferment of third category;" and in column four--corresponding certification, its number and date.

In case of performance of work in accordance with the newly established profession, it is necessary to make a corresponding entry about this in his labor book.

For example, "A second profession of an electric welder established with the conferment of third category and assignment of duties in performing electric welding work in such-and-such production." Along with indication in column four of certification on establishment of a second profession, its number and date, the date and number of the order is also indicated.

One of the new provisions is the mandatory reflection in a labor book of an entry on assignment as a brigade leader of a production brigade and on release from supervision of a brigade in cases and in the order provided by a corresponding sectorial provision on a production brigade, brigade leader, brigade council, and council of brigade leaders.

And the last, which was supplemented in this subsection--the necessity of indicating in a labor book the holding of more than one job. Such work, which was formalized in an established order, will have to be indicated separately. The entry with regard to work done by a person holding more than one job and its completion is made by management at his primary place of work.

The instructions provide some new provisions for filling out labor books by students, pupils, graduate students, and clinical interns. Thus, the provision which was in force earlier on these persons, who have labor books, making entries on the time of their studies at daytime departments of higher and secondary specialized educational institutions is supplemented with an instruction to the effect that the period of work of these persons in student detachments, while performing practical production work, and during fulfillment of economic contractual scientific research subjects must be confirmed by a corresponding certificate with an indication of field of specialization, position, and time of work. Educational institutions enter the information on their work in labor books according to the data received and on the basis of such certificates.

The information on work in student detachments, while performing practical work, and during fulfillment of economic contractual scientific research subjects will be entered by the enterprise at place of their forthcoming work on the basis of certificates for students, pupils, graduate students, and clinical interns who have not worked before and therefore do not have labor books.

By the decree of the Presidium of the USSR Supreme Soviet of 18 May 1981 a provision was confirmed on the order of compensation for damage caused to a citizen by illegal actions of organs of inquiry, preliminary investigation, the office of public prosecutor, and the court, (Footnote 4) (VEDOMOSTI VERKHOVNOGO SOVETA SSSR, 1981, No 21, p 741), and by the decree of the Presidium of the USSR Supreme Soviet of 15 March 1983 a provision on the order and conditions for carrying out criminal punishment, which is not connected with measures of corrective labor influence on convicted persons. (Footnote 5) (VEDOMOSTI..., op. cit., 1983, No 12, p 175).

According to Article 5 of the provision on the order of compensation for damage caused to a citizen by illegal actions of organs of inquiry, preliminary investigation, the office of public prosecutor, and the court, a citizen, who was released from work (position) in connection with an illegal conviction or

dismissed from position in connection with illegal institution of criminal proceedings, must be reinstated in his former work (position), and if this is impossible (liquidation of an enterprise, institution or organization and position reduction as well as existence of other reasons as provided by the law, which prevent reinstatement in work (position), in other work (position) of equal worth. In such cases the entry made in a labor book is acknowledged as invalid and at a citizen's request the management of an enterprise issues a duplicate of labor book to him without recording this entry in it.

In accordance with Article 6 of the provision on the order and conditions for carrying out criminal punishment, which is not connected with measures of corrective labor influence on a convicted person, in case a person is sentenced to deprivation of rights to occupy certain positions or engage in certain activities, the management of an enterprise at a convicted person's place of work terminates, not later than the following day after receiving a copy of the sentence in an order provided by legislation on labor, the labor agreement with a convicted person, who occupies a position or is engaged in an activity for which he was deprived of the rights, and records in his labor book in strict conformance with the sentence of a court the entry with regard to on what basis, for what period, and which positions he was deprived of the rights to occupy or in what activities he was deprived of the rights to engage. This is immediately reported to the court which passed the sentence and to an appropriate internal affairs organ that exercises control so that the indicated punishment is carried out. If the aforementioned entry was not made in a labor book, then this must be done (on presentation by an internal affairs organ which exercises control so that the punishment is carried out) by the management of an enterprise where a convicted person takes a job.

A person, who has served his sentence in the form of being deprived of the right to occupy certain positions or engage in certain activities or who has been exempted from this punishment in an established legal order, is issued at his request a duplicate of a labor book without the entry on punishment being recorded in it.

The new edition of the instructions provides references to the aforementioned provisions, which must be strictly followed in examining questions on recording in labor books of aforementioned persons of corresponding entries and in issuing duplicate labor books to them.

As of 1 January 1986, certain changes will also occur in recording information on rewards and awards. Thus, in the "Information on Awards" section additional information will be indicated on the awarding of medals, valuable gifts, and prizes of the USSR VDNKh [Main Committee for Exhibition of Achievements of the National Economy]; on awards and rewards for active participation in civil defense measures; on the awarding of all-union badges of socialist competition winners; and on the awarding of the Communist Labor Shock Worker title (a corresponding entry must be recorded in a labor book in case of deprivation of this title).

Information to be recorded in the "Information on Rewards" section will include that on rewards for successes in labor, which are used by labor collectives in accordance with the USSR law "On Labor Collectives and Raising Their Role in Management of Enterprises, Institutions, and Organizations."

In recording entries on corresponding awards and rewards it is necessary to bear in mind that previously provided awards (part 2 of former instructions), which were received after 1 January 1975, are recorded in the "Information on Awards and Rewards" section of the 1938 type labor books. The entries on newly instituted awards (for example on the awarding of medals and prizes of the USSR Main Committee for Exhibition of Achievements of the National Economy), which are received after 1 January 1986, are also recorded in the same section of a labor book of the type established earlier (1938). Information only on those newly instituted awards, which are received after 1 January 1986, is also recorded in labor books of the 1975 type.

The "Filling Out of Labor Books During Dismissal" subsection provides some new examples of wording a dismissal, with which legislation links the granting to workers and employees of certain benefits and advantages (for example, "Dismissed at own wish in connection with assignment on a Komsomol travel order to construction (indicate name of Komsomol shock construction project), Article 31 of the RSFSR KzoT [Labor Code]."

During consideration and confirmation by a labor collective of candidacies of leading production workers for assignment to study at higher and secondary specialized education institutions with scholarship paid from the funds of an enterprise, the following entry is recorded in a labor book: "Released from work in connection with assignment to study at (indicate higher or secondary specialized education institution) as leading production worker with scholarship paid from the funds of (indicate specific enterprise), Article 31 of the RSFSR Labor Code."

During cancellation of a labor agreement on the initiative of a worker or an employee in connection with relocation to another area under the organized workers recruitment system, the entry with regard to the dismissal is recorded in a labor book with indication of the reason: "Dismissed at own wish in connection with assignment under the organized workers recruitment system to work at enterprise (indicate specific enterprise), Article 31 of the RSFSR Labor Code."

During cancellation of a labor agreement on the initiative of management in connection with implementation of measures aimed at improving organization in the management of industry and other sectors of the national economy, except for reasons provided for by the legislation in force, a reference is made to a corresponding decision of the USSR government. For example, an entry states: "Dismissed owing to reduction of the staff (or number of) workers, part 1 Article 33 of the RSFSR Labor Code," followed by an indication in parentheses of a corresponding resolution of the USSR Council of Ministers.

The order for recording information on the awarding of pensions was somewhat supplemented. Thus, if formerly only old-age and service pensions were indicated in a labor book, then the new instructions also provide for recording information on the awarding of a merit pension. Minor changes were also made in the order of issuing a labor book during dismissal. Formerly no period was provided for sending a notification to a worker with a request to get his labor book if he was absent from work on the day of dismissal. Such a period has now been established--the management must send a notification by mail on the day of dismissal.

The new edition of the instructions reflects for the first time the question with regard to the possibility of examining labor disputes, which are connected with the application of these instructions, in an order provided for by the provision on the order of examining labor disputes, which was confirmed by the decree of the Presidium of the USSR Supreme Soviet of 20 May 1974. (Footnote 6) (VEDOMOSTI..., op cit., 1974, No 22, p 325).

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CSO: 1828/59

EDUCATION

MORE SCIENTIFIC APPROACH TO EDUCATIONAL TRAINING IN RSFSR

Moscow AGITATOR in Russian No 23, Dec 85 pp 32 - 35

[Article by I. Obraztsov, RSFSR minister of higher and secondary specialized education and academician: "VUZ Science Reserves"]

[Text] VUZ science in our country indeed has an enormous potential. It is possible to judge it using the example of the RSFSR Ministry of Higher and Secondary Specialized Education system. A total of 130,000 scientific workers are concentrated here.

The total amount of scientific research work, which was performed during 1984 in the RSFSR Ministry of Higher and Secondary Specialized Education, was 680 million rubles. This is approximately threefold more than in such a well known detachment of Soviet science as the Ukrainian Academy of Sciences. At the same time, it was mentioned during a meeting in the CPSU Central Committee on questions concerning the acceleration of scientific and technical progress that VUZ could increase the amount of scientific research work 2 - 2.5-fold. When doing this, special attention should be paid to the elimination of duplication in scientific work, the increase of its quality and effectiveness and the return from the resources invested in the research.

Indeed, there are reserves. Let us take our intellectual potential. Up to one-third of the total number of scientists and almost half of the candidates and doctors of science in the country work in VUZ. A half million instructors are working here and training 60,000 graduate students. A vast network of stationary scientific subunits -- 1,300 problem and branch scientific research laboratories and design technical bureaus and 50 scientific research institutes -- is operating in higher schools. Today, approximately 100,000 scientific research works are being performed in the country's higher schools.

This year, the RSFSR Ministry of Higher and Secondary Specialized Education is completing an experiment to master the new form of scientific research work in higher schools -- the costaccounting scientific association. The program special purpose method for organizing research and development (NIOKR), which is organized according to the schedule: "Problem-purpose-program-resources-final results," has been placed at the basis of its activity. Within the state budget, the percentage of very important research, which has primary significance for the national economy, has grown to 90 percent and it is financed

by supply orders. The unity of the training and scientific process, centralized servicing of scientific research and experimental design work and the management of research using economic stimulants and common norm and method documents, are assured.

The preliminary results of our work were reported to the Presidium of the RSFSR Council of Ministers on 10 June 1985 and they were approved and supported. That is why it is necessary to talk in more detail about the main results of the experiment being conducted.

The main thing is the concentrating of the considerable forces of the VUZ scientists on solving important national economic, interbranch, branch, and regional problems. The association is participating in the fulfillment of 134 USSR Council of Ministers and State Committee for Science and Technology (GKNT) programs. The VUZ are the leading ones for 15 programs, and the programs are being fulfilled jointly with the leading branches using the forces of temporary scientific collectives. More than 80 percent of the work is being done on very important subjects. The special purpose complex programs have been oriented toward obtaining concrete developments -- models of equipment and new technologies.

The effectiveness of the new organizational mechanism grew when the association's management staff began to provide for the supply of material resources to the projects during planning and moved from the order level "department-enterprise" to the level "ministry-ministry."

As is known, fundamental and searching investigations are the basis for applied developments. Quite a few fundamentally new technologies have been created based on them. Many VUZ discoveries have been widely recognized in industry.

The association has directed its efforts toward the development of an enormous stockpile of fundamental and research scientific investigations under way, which on the whole is growing old. Naturally, we set about realizing it during the first stage, trying at the same time to update and support it at the required level. In addition to the 60 million rubles that the State Committee for Science and Technology allotted us for budgetary subjects in the prescribed manner, we directed another 65 million rubles for these purposes within the framework of economic contracts with the leading branches of the national economy. The amount of fundamental research has increased significantly today.

We have managed to achieve a certain acceleration in the introduction of VUZ works into practices during the experiment. In particular, we managed to achieve this for 15 USSR Ministry of Higher and Secondary Specialized Education programs with an annual work volume of 77 million rubles.

The introduction of the results of the work, which is being performed within the framework of these programs, is being carried out in the base enterprises of the customer ministries by temporary joint introduction groups that have been formed from VUZ workers -- the executors of the program -- and the customer enterprise workers. Here are specific examples.

The Tomsk Automated Control Systems and Radio Electronics Institute has developed an interdepartmental automated information system for accounting for and operating motor vehicle transport. It insures the accumulation, storage, retrieval and processing of information on transport rolling stock. Its use is particularly timely for the planning, accounting and monitoring of expenditures of spare parts and POL; the training of drivers; and the monitoring of the use and effective search for motor vehicle transport assets. The system was implemented using the computers of a single series and functions using dialogue conditions. It has been used successfully for about five years in Tomsk, Leningrad, Yerevan, and Alma Ata. It is advisable to introduce this system everywhere; however, departmental obstacles are preventing this.

The Altay Polytechnical Institute has developed a durable track chain with rubber and metal joints for tractors. It insures a three-fourfold increase in the life of tractor tracks, a decrease in expenditures for high alloy casting and an increase in efficiency and productivity and it saves 1.5-2 tons of diesel fuel a year per tractor. Considering the number of tractors needed by the country, the annual economic effect could be 80 million rubles.

The method for the diffusion welding of metal and non-metal materials in a vacuum is very interesting. This provides for the creation of designs in which the connections possess all of the qualities of the initial materials and increased strength. Expensive solder, flux and electrodes are not required for this. The technology is harmless to man and the environment. The economic effect exceeds 100 million rubles. The work was performed in the Moscow Aviation Technological Institute under the direction of Professor N. Kazakov and earned a Lenin prize in 1984.

The technology for obtaining especially pure substances, which was developed in Gorkiy University, also has a great deal of importance. In particular, a lead oxide of special purity is obtained and used as a phototarget for a color television camera tube. This has permitted the industrial production of these tubes to be organized since 1980 and freed us from importing them. The annual foreign exchange savings are 12-14 million rubles. All of the country's television studios have worked using the domestic set since 1981. The tubes have been exported to the CEMA countries since 1983.

The production of especially pure substances, which are used in new equipment, has been organized in Gorkiy University.

An important role in accelerating the introduction of scientific research work results into practices belongs to VUZ design organizations. The results of research and development, in which new physical phenomena and effects are used, are incorporated most rapidly after preliminary design study in VUZ design bureaus. Taking this into account, the association has intensively expanded the network of design organizations in VUZ. Of the 25 design organizations now functioning, 10 were established during the experiment period.

The fact that a cohort of directors of a new type -- VUZ rector and scientific research institute, design bureau and program directors -- has emerged in the

Ministry of Higher and Secondary Specialized Education during the conducting of the experiment is also related to the undoubtedly positive results of the experiment. These are people who are filled with initiative, who have fully risen to the level of understanding state tasks, and who are capable of heading complex programs.

The experience, which has been accumulated by the RSFSR Ministry of Higher and Secondary Specialized Education and the VUZ subordinate to it in modernizing and intensifying the training, scientific and indoctrinational process, is quite interesting.

When reviewing training plans and programs, we first of all proceed from the need to decrease mandatory lecture hall classes and offer the student more time for independent work under the control of an instructor. The experience of the Leningrad, Novosibirsk and Tomsk universities; and the Moscow Physical Technical, Leningrad Electrical Engineering and Polytechnical and UFA and Kazan Aviation institutes shows that the policy of independent creative work for students is the main training for specialists.

The most advanced instruction methods, which have shown high effectiveness, have been formulated and are being used today within the framework of the special purpose complex programs to create automated scientific research systems (ASNI) and automated design systems (SAPR), in which 90 VUZ of the RSFSR Ministry of Higher and Secondary Specialized Education are participating.

Modern computer equipment has been introduced actively into the training process. Thus, together with the scientific institutions of the Siberian Branch of the USSR Academy of Sciences, Novosibirsk University received reassuring results from incorporating terminal classes, which interact with data banks, into the training process during the study of such subjects as physics, chemistry, economics, and several others.

In the future, we are faced with establishing automated data banks of training and scientific and technical information for the majority of disciplines, developing methods for using them, insuring the circulation of training information for all VUZ, and also organizing the training and retraining of instructor and technical personnel.

In a number of educational establishments, training systems for automated designs and research engineering are being commissioned and data banks are being created for them. The collectives of the Leningrad Aviation Instrument Making Institute, Leningrad Electrical Engineering Institute, Ivanovo Power Institute, Kazan Aviation Institute, All-Union Correspondence Machine Building Institute, and Moscow Machine Tool Instrument Institute are successfully working in this direction.

The intensification of the training process is linked with the development of new effective organizational forms for it, the reorientation of the psychology of the students and instructors and the re-equipping of the higher school. The experience of several leading VUZ is valuable in this regard.

The Taganrog Radio Engineering Institute has emerged as one of the initiators in implementing the principle of the unity of the training process, of the scientific research by instructors and students and of active forms for the indoctrination and Marxist-Leninist training of specialists. It was the first to create a training, scientific and production complex (UNPK) within itself by combining the training and scientific sub-departments of the VUZ and to insure an unbreakable bond with production, industrial and academic scientific research institutes and design bureaus.

Today, it has concluded 27 direct contracts with the enterprises of a number of ministries and is conducting purposeful training of engineers. Based on the contracts, the building of production practices is being organized, planning scientific work is being carried out and graduation projects are being assigned to VUZ graduating students. The integral combination of training, scientific and production work has had a positive effect on the academic activity and progress of the students: The number of those students receiving a "three" has decreased significantly and the number of students who have dropped out has decreased twofold.

Moreover, by being involved in the production and research process; by rubbing shoulders with workers, specialists and scientists; and finally, by sensing the influence of the production collective for a long time, the students receive the living experience, which they were missing, and an opportunity to follow the example of their older comrades. This has a beneficial effect on the formation of the future specialist's personality.

The use of the creative and scientific potential of VUZ and the formation of important scientific avenues has permitted important national economic tasks to be solved and the continuity of the scientific and production process to be insured, beginning with fundamental research and development work to the creation of experimental models and the submission of them for incorporation into industry.

Finally, the training, scientific and production complex has considerably improved the conditions for training scientific and teaching personnel with the highest qualifications and doctors and candidates of science who are capable of rising above information instructional methods, in which only a large amount of systematized knowledge is transmitted to the students, to its methodological principles, search, research and creative work.

At the present time, a scientific research institute, four branch scientific research laboratories, a computer center, a number of departments and scientific research sections and laboratories, an experimental workshop and four student design bureaus have been organized within the training, scientific and production complex. All of the institute's scientific and research forces have been concentrated on eight important scientific avenues within whose framework 13 complex scientific and technical works and programs from the State Committee for Science and Technology, the USSR Academy of Sciences, Gosplan and the USSR and RSFSR ministries of higher and secondary specialized education are being carried out.

The special purpose complex program for establishing multi-processor computer systems with programmed architecture is an example of effective work. More than 10 VUZ and six very large industrial scientific and production associations are participating in the carrying out of the program in which the institute is the leading agency. The institute and enterprises have developed and created in a record short time -- all told, eight months -- a unique microprocessor which does not have any analogues. Based on it, the building of computer equipment with very high productivity is being completed. The total amount of research and development, which is being performed by the training, scientific and production complex, has reached nine million rubles. The confirmed economic effect is 92 million rubles, i.e., approximately three rubles per ruble of expenditure.

However, the most important factor in the work of the training, scientific and production complex is the fact that all scientific subunits are serving as the base for training specialists and involve all students in their work. One working day each week is given to the students to perform their mandatory scientific research work. The majority of the scientific workers participate in teaching work, and the instructors -- in the scientific research that is being conducted in the VUZ for the full cycle -- from the idea to the manufacturing of a model of the new item.

The forward line of the struggle to accelerate scientific and technical progress runs through science today. The successes of Soviet scientists in the different areas of knowledge and technical progress are universally recognized. However, we look at what has been achieved through the prism of time -- the requirement for a decisive turn of science toward production needs, and production -- toward science. To do this, it is necessary to eliminate all the difficulties that prevent combining scientific research with the introduction of its results into practice. There are still quite a few of these difficulties.

A large number of VUZ works do not reach practical incorporation. The reasons are the most varied ones. Industry far from always trusts our work. Planning shortcomings, where VUZ works are not included in branch incorporation plans, interfere. There are quite a few shortcomings in the VUZ themselves. Their testing and experimental base is poor. In a number of places, difficulties are being experienced in the supply of needed materials, reagents and modern computer equipment.

In individual VUZ, the percentage of works, which do not have any practical significance, is still great and the fragmentation of scientific forces and duplication are being permitted. Cases are not rare where the work is not concluded with an incorporation and acts about its use in production are compiled in a formal manner. The efforts of VUZ scientists are far from always concentrated on solving the most important problems that define the level of equipment and technology in the branches of the national economy, and research is performed on subjects, which have not been planned, to the detriment of those that have been planned. From this comes the irrational use of scientific forces and expensive equipment.

It is also necessary to work on bringing about a change in the frame of mind of the professor and instructor staff -- but mainly -- in that of the students, the future specialists, so that their thoughts and interests can be directed toward accelerating scientific and technical progress. You see, how quickly VUZ will be able to expand their participation in research, which has national economic significance, will depend on joint efforts. Finally, while a higher school is not recognized as a scientific organization in an organizational manner and in a planning and financial respect, its scientific potential will not be used effectively and the level of training of specialists will lag behind the requirements of the times.

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EDUCATION

TECHNICAL INSTITUTE HEAD DISCUSSES TRAINING FOR SPECIALISTS

Moscow SOVETSKAYA ROSSIYA in Russian 13 Sep 85 p 3

[Interview with academician Oleg Mikhaylovich Belotserkovskiy, rector of MPTI [Moscow Physicotechnical Institute] and Order of Lenin recipient, by SOVETSKAYA ROSSIYA correspondent N. Radko: "The VUZ Goes to School"; date and place not specified]

[Text] This year, the Moscow Physicotechnical Institute [MPTI] was the winner of the All-Union Competition of VUZ collectives for results in the 1984 School Year and the possessor of the Challenge Red Banner of the USSR MinVUZ and the Trade Union Central Committee. It was also noted that instruction work conducted by the institute collective among senior pupils and school teachers was highly effective.

This conversation between our correspondent and the head of MPTI [Moskovskiy Physical Technical Institute] academician Oleg Mikhaylovich Belotserkovskiy, who was recently awarded the Order of Lenin, deals with tasks of school education in light of requirements of great scholarship.

[Question 1] Oleg Mikhaylovich, I have often heard VUZ instructors, starting their first lecture in an auditorium of yesterday's graduates, say something like this: "Try to forget as soon as possible what you were taught in school. We are going to start all over to learn the right way." Obviously, this is a joke to some degree, but in every joke there is a bit of truth. How would you evaluate such a position?

[Answer] I do not like it, even as a joke. We have a high level of school preparation. I am convinced that school is the most crucial period in a person's life. And the further we get away from it, the more clearly we understand this. School is the beginning of one's vocation, profession, and recognizing one's own possibilities, which the VUZ and practice consolidate. Every year we meet school graduates from various parts of the country, including the most distant. Once during an interview, a girl said she had come from a village situated on the coast of the Sea of Japan. In all innocence,

I asked, "Is the Sea of Japan in Japan?" She answered that it also borders the coast of the Soviet Union. Later, she proved to be one of the strongest students in our institute and graduated with honors. Incidentally, we generally love children from the provinces. Often, one senses in them a genuine, mature need for self-education and perfection of personality, which, alas, is sometimes lacking in the city graduate, who relies too much on the prestigious school or even on tutors. And the capacity for self-education may be the most important thing the school teacher must impart to the student. Nevertheless, it is a little too late to begin instilling such a quality at the VUZ. He who is used to memorizing textbook contents will not cope with the instruction of higher schooling. Naturally, he will not find a great use for science either.

[Question] Is it also harmful to work mechanically with a textbook, because no textbook can keep up with scientific developments?

[Answer] Yes, and this problem is not only one of school education. There is the opinion that in 5-7 years, knowledge received in a VUZ becomes significantly dated, and the specialist must renew it and update it, maybe, into a narrower, but deeper dimension. For this reason, here, as well as in the West and in America, serious attention is given to additional training of staff. The system of additional training is very important and needs to be constantly improved, and the matter here is not so much the conservatism of school and VUZ programs, but rather the rapid development of scientific-technical progress. Here is a simple example. Archimedes' principle and laws of Newton's dynamics, which link force and mass, are separated by almost 2000 years. And all of space technology, which is well known to us, was essentially invented in 25-30 years. Therefore, computerizing school education is not a whim; one simply cannot manage without it now. As the president of the USSR Academy of Sciences' Scientific Council on the complex problem of "Cybernetics," I can say that we propose to open (as a guide, in the Yaroslavl Oblast) a laboratory for information, where they will be mastering a method of preparing teachers who will have to teach this subject in school.

[Question] The system of additional training for school teachers, which exists in the physical-technical institute, has become well known in our nation. Please tell us something about it.

[Answer] For more than 10 years, we have been conducting a course in June for increasing the qualifications of physics and mathematics school teachers in the Russian Federation. We acquaint them with achievements in modern science and technology. The teachers study with the authors of textbooks and arithmetic books, which their students use, and with leading scientists from the USSR Academy of Sciences. This year, in relation to the introduction in the 9th grade of basic information courses and computer technology, we conducted courses for VUZ instructors, so they in turn could train teachers in their regions.

[Question] Are these courses voluntary?

[Answer] Well, so to say. The oblast Board of Education sends some and some come on their own. For example, every year, an instructor from Yerevan forces his way here. I said "forces his way" because we still have not managed to adjust yearly courses for teachers from other republics. And, to tell you the truth, I like the persistence of this teacher. If only there were more of these "volunteers." Their students can only envy them.

In general, the teacher's personality is such a paramount, important factor, that any conversation about school should start from just that. Our VUZ trains scientists. But the formation of a genuine scientist may start long before this, with an encounter with a real teacher. A teacher's calling, in my opinion, not only consists of the ability and desire to impart everything one knows to the younger population, but also the ability to uncover the unknown.

Forty years have passed already since my contemporaries and I finished school. The war cut into our lives, but even it did not succeed in erasing our school memories and images of school teachers. I recall our physicist. He was an inconceivably interesting man. He always walked around covered with chalk dust, never noticing it at all. In his class, we followed the course of physics experiments entranced and really worried whether Edison's apparatus would produce electricity or not. To this day I do not know whether it was a pedagogical method that not every experiment in our class turned out the desired result. Most likely it was. But in that class, we experienced the anxiety and hope of the researcher for the first time. In my whole life, I have encountered only one other example of such teaching. It was academician M. A. Lavrentyev, who worked at our physico-technical institute. Lecturing on the theory of functions of the complex variable, he suddenly turned to the auditorium and said that it was amazing, but something was not turning out right. He suggested that we think about it together, do it over, review it.

[Question] As a rule, we define a teacher as a person who teaches in school, but surely an academician who teaches students is also a teacher.

[Answer] Yes, of course. But all the same, I continue to maintain that in the plan of personality formation, more depends on the school teacher. It is all a matter of age. A school child has an active, associative mind. If he is developed properly, unbelievable successes can be achieved. This year, a 12-year-old boy entered our institute for the first time in my 20-year experience as director of MPTI. His mother said that he is a normal child, not a child prodigy, he was just really lucky with his teachers. Many people have probably observed relatively small children solving Rubik's cube quickly and correctly, while many of the teachers are not able to solve it. Our heads are full of such a quantity of various responsibilities that our brains simply are not capable of switching off and concentrating. While all of this has been given to children: the ability to completely perform a concrete, even instantaneous act, unlimited imagination, and the desire to know. At the institute, we have a joke that is not without a certain truth. Sometimes we give a lower classman an especially complex problem in order to determine

whether he will tackle it. Suddenly it comes to light that this person not only tackled it, but solved it relatively quickly, while the department instructors had difficulty solving it.

[Question] While we are on the subject of lower classmen, MPTI is one of those VUZ's which, if I can put it this way, do not expect "favours from school," but train graduates themselves. How is this training done?

[Answer] The training system in the physicotechnical institute is original. Our principles are the fundamentality of university education, base institutes where special departments are introduced, investigating activity in the process of training itself and an individual approach to the scientific work of each student. It is still difficult for school to be flexible enough to train each student in accordance with the requirements of that educational institution which he has chosen. I do not know if this is generally possible on a global scale. In many cases, the VUZ must take such training upon itself. We will only gain from this, decreasing the percent of errors when admitting students. In order to select 700-800 future students, the institute examines, in various forms, 10,000-12,000 school children. It is the system of night and correspondence physico-technical schools, training olympics and publishing advertising issues of the magazine FOR SCIENCE. Around 7,000 of our nation's students of the 8th, 9th, and 10th grades study in our correspondence PTS [physicotechnical school]. Approximately one third of them enter our VUZ. They are trained on the level of high school medallists.

[Question] Well, then, how are those medallists trained who are not your own?

[Answer] I would say that a medal can be for various merits. Sometimes it is for advanced training of a graduate. Sometimes it is not. Participants in the physics and mathematics olympics are a different matter. In many cases they are our contingent.

[Question] Do instructors of the institute participate in conducting the school olympics?

[Answer] In recent years, we have "taken over," so to say, conducting the All-Russian and Union Olympics in Physics and Mathematics. Our instructors, graduates, older students and representatives of the komsomol committee carefully examine the children's work and make their conclusions.

[Question] Are you searching for talents?

[Answer] No. In any case, that word is not used in our institute. We are looking for people who are capable of working well and a great deal, investigators and creators. Our country needs these very scientists to be trained.

[Question] Recently I was present during a conversation between graduates of one of the Moscow schools and their instructors. The youths, contemplating the system of school education, said that specialization must start in school. They said that often the pupil studies his scientific theme independently, but he comes across many complications with both the special literature and

with the supervisor. It is a good thing if the young researcher is persistent and enterprising. They brought up an example of a young girl from an English special school who prepared a mature study, which was approved by specialists. But surely not all youths know where to go with their ideas. And enthusiasm can also fade away.

[Answer] I am in complete agreement with the upper classmen about whom you are speaking. Obviously, school somehow needs to be brought closer to the educational system of VUZ's, which train specialists in cooperation with scientific-research institutes, the designer's office, and industry. The educational system must be "directed." School reform in particular calls for this. As yet, management practice in many schools amounts to formal and mechanical work and leaves little space for scientific and artistic thought. Meanwhile, at the CPSU Central Committee conference dealing with scientific-technical progress, the words resounded: "We expect much more from youth, from its energy and keen mind and interest in everything new and advanced."

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CSO: 1828/5

EDUCATION

POOR ACADEMIC PREPARATION FOR MEDICAL DOCTORS LAMENTED

Moscow PRAVDA in Russian 16 Dec 85 p 3

[Article from Yerevan by Professor V. Astvatsatryan, rector of the Yerevan Medical Institute, Armenian SSR State Prize Laureate, under the rubric "The Higher School: An Order for a Specialist": "Let There Be a Doctor!"]

[Text] Familiar lines from the applications of candidates for admission: "I dream of becoming a surgeon." In my memory there are thousands of such "dreamers." More than once I have asked: "Just why a surgeon, and not, shall we say, a gastroenterologist?" In response--vague reasons, borrowed from the movies and literary works. White gowns, instruments shining of nickel, the operating table--all of these embody romanticism in the youthful imagination. Dozens of other medical professions, each of which is necessary in the healing arts, remain beyond their field of vision. Unfortunately, many parents--the secondary school graduates' main advisers--do not know about them either.

Children, as a rule, are oriented toward general-practice [obshchiy profil] specialties: surgeon, obstetrician-gynecologist, stomatologist, internist.... This is not surprising: Such doctors are in the public eye, and everyone knows about them. Actually, admission applicants' interest in these specialties, in itself, is not bad at all. They are the foundation of public health's primary component [zveno], and vuzes [higher educational institutions] must meet the requirements for them first of all. However, one should not forget about the doctors of less general practice [profil] either.

Care must be taken that secondary school graduates, choosing for themselves a vuz [higher educational institution] to their liking, have a conception of these professions. The road to medicine must always be closed to random individuals enrolling in a vuz by mistake. And, of course, it is necessary to improve the educational process, as well as provide for the high-quality training of "narrow" specialists within the institute's walls.

During recent years, certain work has been done to improve the quality of doctors' and pharmacists' training. At the same time, as experience shows, and as is justly noted at conferences on the higher medical school, the graduates' level of practical training still does not always meet current requirements.

Unfortunately, there are young doctors who do not know at all how to use the instrument and laboratory methods for examining patients, insufficiently know the methods for rendering first aid and emergency treatment, and poorly understand differential diagnosis of diseases. Not all students know how to analyze electrocardiograms and carry out general and clinical analyses of blood. By no means all are able to give an intravenous injection.

Of course, the rectors' and deans' offices' insufficient demandingness toward department heads and instructors is apparent in this. Moreover, student training is conducted, at times, in treatment and prevention institutions not meeting current requirements, and not having the proper treatment and diagnosis equipment at their disposal. However, the main cause, in my view, is the "omnivorousness" of the curricula and syllabi, aimed at training, not specific specialists, but doctors in general.

It is well known that engineers are not being prepared at all. What is more, a policy of differentiating the educational process along the dozens of new lines necessary for accelerating scientific and technical progress has been set in the polytechnical vuzes. Medicine's development, too, requires the training of "narrow" specialists directly out of undergraduate status--allergists, nephrologists, vascular surgeons, pulmonologists, endocrinologists, and many others, the requirement for which is great, and in public health's primary component at that.

The objection may be made to me: Without general knowledge, a "narrow" specialty cannot be acquired. Yes, that is so. But why not fit all of this into 6 years of study in the vuz? Judge for yourself. As a rule, after completing the institute, a year of interning is necessary, then 2 years of mandatory work in a broad-practice [shirokiy profil] specialty, after which there is specialization in a doctors' advanced training institute, or 2 more years of practical clinical candidacy in a chosen narrow profession. Is this not too extravagant for the State?

Besides, such a protracted process of forming young specialists occasionally entails a natural fatigue. In our female graduates who have time to get married and have children, all desire to specialize frequently disappears. In public health's primary component, their "general" knowledge--I make bold to assert--remains very, very vague.

Neither, unfortunately, are we preparing public health administrators. The need is great for skillful chief physicians who know their job. After all, they do not just direct the medical "orchestra." Economic affairs in public health institutions also depend upon their competence and initiative. However, many chiefs of medical collectives, to this day, are not attuned to the fundamentals of administration, economics, and accounting. And this is not their fault, but their misfortune.

And why is it not permissible to pick out the most capable and active Komsomol [Leninist Communist Youth League] members and prepare them for public health administrative work directly out of undergraduate status? On this question, I have been answered rather evasively: "Your idea is right. Prepare them." But how? After all, individual initiative is unacceptable in a *vuz*. The educational process is organized in strict accordance with the curricula and syllabi. And, under this circumstance, everything returns "to the previous condition": As before, we prepare general-practice specialists.

As experience shows, so-called "general" specialists not infrequently are incompetent in both the general and particular matters of practical public health. This happens because, to this day, planning for the training of medical personnel is neither studied nor learned in the proper manner. The urgent need for "narrow" specialists drops out of the planning agencies' field of vision.

It is common knowledge that 40 percent of women in the postnatal period develop vascular disturbances of the extremities, which seriously affect their working ability. However, in public health's primary component today, it is impossible to treat such a widespread ailment. The general surgeons, to whose assistance the afflicted persons resort, are incompetent in this special field.

Or, inquire in a polyclinic--are there nephrologists in it? They simply are not called for by the staffing table. Patients with kidney diseases are sent to an internist; that is, to a doctor who obviously cannot treat such a patient at the proper level.

At present, mankind carries within itself a burden of hereditary diseases. Some of them are manifested in overt form, and others in the form of so-called hereditary predispositions. Who is supposed to determine all of this, if not a clinician-geneticist? And is there such in public health's primary component? Unfortunately, no. Neither are there, by the way, any pulmonologists--specialists in lung diseases--or many others. And they are not there for the reason that the training of "narrow" specialists has not been planned in the higher medical school's structure. Hence the absence even of such necessary departments as allergology, vascular surgery, nephrology, medical genetics....

A paradoxical picture is obtained: We, the doctors, are not in step with the times. Improvement of public health is demanded of us, but we, agreeing in words, do not take effective steps to overcome its backwardness. I am deeply convinced: In public health's primary component, along with the doctors participating today, there absolutely must be "narrow" specialists, knowing well how to use the modern methods of research in one or another field of pathology. Only thus is it possible to ensure maximum effectiveness in treating and preventing diseases.

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CSO: 1828/61

EDUCATION

USSR DEPUTY MINISTER OF EDUCATION ON COMPUTER USE IN SCHOOLS

Moscow AGITATOR in Russian No 22, Nov 85 pp 32-34

[Article by F. Panachin, USSR First Deputy Minister of Education]

[Text] Starting with the current school year, a new general-educational course has been introduced in the schools -- "Principles of Informatics and of Computer Technology."

What caused the introduction of that course into the curriculum?

Electronic-computer technology and informatics are, as it were, catalysts of scientific-technical progress. Under present-day conditions the broad study of electronic computers, or, as they are frequently called, "kompyuters" (from the English word, "computer"), is becoming a vital requirement and necessity for the further development of Soviet science, technology, and economics. The area of the application of this achievement of science and technology is very broad. With the aid of computers, man very often can free himself of simple, routine, mechanical work. In industry this takes the form of machine tools with numerical programmed control, which can process various parts, including very complicated ones, automatically. Electronics lies at the basis of robotics and various manipulators.

Electronic computers make it possible to carry out very complicated computations when designing advanced technology, and to carry out thermonuclear synthesis and one-of-a-kind physical and biological-chemical experiments. Many information-retrieval systems are based on electronics.

Linked with the appearance of electronic computers are the origin, initial growth, and further development of a new science -- informatics, which studies the laws and methods of accumulating and processing information, the science that deals with the methods and means of resolving tasks on computers.

During recent years we have seen the appearance of so-called personal computers, which render practical assistance to man in his work: to the scientist in carrying out a particular experiment, to an architect in designing, to a physician in making a diagnosis, to a teacher in organizing the instructional process, and to the student in studying.

All this and many other factors have influenced the need for universal computer literacy among our young people and the introduction of this subject

into the curricula of secondary schools and other secondary educational institutions.

What, then, are the basic goals and content of the course "Principles of Informatics and of Computer Technology"? Starting with 1985-1987, this subject will be taught in grades 9 and 10 (after the changeover to the 11-year period of instruction in the school system, in grades 10 and 11). In grade 9, 34 hours are set aside for studying the course. In grade 10, depending upon the capability of organizing the practical work for the students on computers, the volume and content of the course are differentiated into two alternate versions: complete and short. The complete course (68 hours) is intended for schools that have computers at their disposal or that are able to organize regular classes at computer centers of other organizations. The short course (34 hours) is recommended for schools that temporarily lack that capability. Thus, at the present time, within the confines of the curriculum that is in effect, somewhat more than a hundred academic hours are devoted to it. The course syllabus has been developed and approved. A tentative teaching aid for students has been prepared and will be published in a massive printing run. The group of authors who prepared the teaching aid was headed by USSR Academy of Sciences Academician A. P. Yershov and Corresponding Member of the USSR Academy of Pedagogical Sciences V. M. Monakhov.

The goals of the course "Principles of Informatics and of Computer Technology" are to familiarize the students with the role of computers in present-day social production and to develop in them a knowledge of the very important rules and methods of resolving tasks on electronic computers. But that is not all. In the not too distant future the school computer will be used also as a means of teaching mathematics, physics, chemistry, biology, and other subjects. It will, as it were, push back the horizons of the student's mental indoctrination and will promote the development in him of very important learning and work knowledge and skills.

The syllabus for the new course includes the study by the students of algorithms, their properties, and the principles of design and functioning of electronic computers, and familiarization with programming. The new subject substantially expands the set of mathematical tools available today to the student. These will include the theoretical knowledge and practical skills that enable the student to carry out the construction of algorithms, programming, and the resolution of learning tasks on computers. The study of informatics will promote the indoctrination of the students. An indisputable contribution to the formation of their dialectical-materialistic political philosophy will be the explanation to them of the peculiarity of reflecting the real world by means of mathematical models, and the demonstration of the peculiarities of constructing mathematical models by the methods and means that are provided by modern electronic computers and their software. Something that will be no less important is the revelation of the real capabilities of electronic computers in expanding man's intellectual and cognitive capabilities.

The experience of studying and using electronic-computer technology in the school system and in interschool production-training combines is not great,

although it has already been accumulated in Moscow, Kiev, Novosibirsk, and certain other cities throughout the country. In a number of schools, students have studied an elective course dealing with the principles of programming, electronic computers, and computer mathematics. According to the written critiques given by the school teachers, the professors and instructors at the Moscow Institute of Electronic-Computer Technology, the Moscow Physical Engineering Institute, and other educational institutions, the work performed by the students with computers has proved to be valuable. There has been an improvement in their theoretical and practical training and their mastery of mathematics and physics, and an increase in their interest in the achievements of science and in technical creativity.

Who will teach this subject in the school? For the most part, teachers of mathematics and physics. Many of them (we are talking about 20,000 young teachers) are already receiving the appropriate training at pedagogical institutions of higher learning and universities. Teachers in the middle and older generations have taken course retraining at higher educational institutions that have highly trained specialists at their disposal, as well as the necessary material base. There have been seminars for instructors at universities and at pedagogical and technical institutions of higher education who are the leaders of teacher courses, and for mathematician-methodologists at teacher refresher institutes. During the summer vacation, short-term courses were organized for approximately 70,000 teachers (instructors) at schools, technicums, and SPTU [rural vocational and technical schools].

USSR Minpros [Ministry of Education] and Minvuz [Ministry of Higher and Secondary Specialized Education] have introduced into the curricula of the pedagogical institutes as a mandatory course "Technical Means of Instruction and Computer Technology." Starting with the 1985-1986 school year, many pedagogical institutions of higher learning will train mathematics and physics teachers with the specialization "Informatics and Computer Technology."

The public education agencies have received the right to use as instructors of informatics and electronic-computer technology, on the basis of the official combining of duties, specialists at enterprises and NII [scientific research institutes] and scientific-pedagogical workers at institutions of higher learning.

For purposes of providing scientific methodological support to the instruction of the principles of informatics and computer technology, USSR Council of Ministers has resolved the question of creating, within the confines of the USSR Academy of Pedagogical Sciences, a specialized scientific-research institute (in Novosibirsk). It is planned to publish a journal on scientific methodology, entitled INFORMATIKA I VYCHISLITELNAYA TEKHNIKA V OBRAZOVANII [Informatics and Computer Technology in Education]. In 1986 a contest will be carried to develop a stable textbook. A set of teaching materials for the course, which was prepared by specialists and which includes a number of graphic teaching aids, has been approved. A series of popular-scientific programs designed to help the school system will be broadcast over central television.

At the present time a complicated problem is being resolved -- the problem of providing the schools, technicums, SPTU, pedagogical institutions of learning, and the institutions in the methodological service with modern computer technology. The USSR Ministry of Education has included in the list of graphic teaching aids and teaching equipment for schools sets of instructional computers of the DVK [dialogue computer] and Agat type.

At the same time it is necessary to make complete use of that technology that is at the disposal of the base enterprises and the school organizations, the scientific-research and training institutes, the computer centers, and other institutions.

Electronic-computer labs, equipped with modern personal computers for the students and for the teacher, the basic software, magnetic carriers, and other equipment constitute the basis of the material base. Microcalculators will be used, in conformity with the decisions that were previously made, in mathematics courses to resolve tasks and in physics and chemistry courses to carry out laboratory and practical projects.

The syllabus dealing with the principles of informatics and computer technology assigns to calculators the role of one of the methodological means for acquainting the students with the design of electronic computers. In that syllabus it is pointed out that the microcalculator must be viewed as a microcomputer in which the functions of controlling the computational process are executed by man, thus making it possible in a graphic manner to develop in the students an idea of the essence of the control functions that are executed by the computer in the automatic information-processing mode. And there is one more consideration: for the time being, microcalculators will be used more broadly when conducting practical computer training when the subject is being taught in the short version.

The time for instructing the course "Principles of Informatics and of Computer Technology" has been obtained by partially reducing the number of hours set aside for other school subjects. Incidentally, this does not prove detrimental in any way to history, literature, or the principles of government and law. Moreover, as is generally known, a new subject in the humanities has been introduced into the curriculum -- "Ethics and Psychology of Family Life" -- and there has been an increase in the amount of time for studying "Social Studies."

Obviously, the introduction of universal computer literacy is no simple task, but it is one that is extremely necessary for Soviet society. It is one of the components of the reform of the general-educational school system. It is very important to help the schools, technicums, and SPTU in several ways -- in

the creation of the necessary material base, in the attracting of specialists, and in developing a favorable psychological mood both in the pedagogical collectives and among the parents and students

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CSO: 1828/37

EDUCATION

NIGHT SCHOOL EDUCATIONAL SYSTEM CRITICIZED

Moscow KOMSOMOLSKAYA PRAVDA in Russian 13 Nov 85 p 2

[Article by Yu. Batutin, night school teacher, Zaporozhe: "Tired of it!"]

[Text] Teacher Notes Problems

"'Studies' in a night school like ours are built on eye-wash... Examinations that no one has taken and lessons that no one has conducted - all this is nothing more than registrations. It cannot continue like this!," considers a teacher, who reflects on how to put order in the system of night education.

After the pedagogical institute, I worked in a school, a tekhnikum, a vocational school and then, six years ago, fate cast me into a night school. I was shocked by what I saw. More than thirty years ago, I myself had to finish tenth grade in a night school. There were 28 people in the class and every day, 22-25 people participated in the lessons; no allowances were made for the fact that it was a night school and we took our examinations completely seriously. From our graduating class, five people immediately entered the institute, without tutoring and without the preparatory sections.

Of course, I had heard that night school now is not what it was and that the students are not what they were, but what I encountered is difficult to imagine. This was the situation. I taught Russian literature in the tenth grade. Throughout the whole year, 0,1,2,3 or 4 people out of 36 attended classes. During the year, I simply did not see the majority of the class and, naturally, did not know them by sight. But the class administrator periodically gave me the notebooks of the absent students and I had to check them and grade them. We marked 2-3 students absent, while the rest, according to the class register, "attended" and we gave them grades. Sometimes, among the work given to me by the class administrator, I saw "compositions" written in her handwriting for some remiss student. I tried to talk about this at the pedagogical councils: people looked at me as though I was crazy. After a year, I too was given class administration. Then I found out what "model" and "full complement" mean.

A "model" is a notebook with the checked and graded work of students of past years in some subject, while a "full complement" is a set of these "control materials" in all subjects for the whole year. If the mountain does not come to Muhammad... So, if the students do not go to school, but the administration beats out of the poor teacher absolute fulfillment of planned control materials, the teacher goes to the student's home and brings him these "models" and "full complements" so that he can copy them carefully, and afterward the teacher must go again (more often than not, about five times in all) in order to collect this work. Any family member may copy this work: wife, daughter, children who are pupils themselves, or friends. They write it when sober and when drunk. Having managed to get through these notebooks, the student appears at the examination and the "academic year" is finished. We promote him to the next grade.

I often met students whom I had never seen at night classes, but to whom I had to "administer" examinations. There were also not a few cases where people were promoted to the next grade who did not attend classes and did not even appear at the examination. The situation was particularly unpleasant at the graduating examinations in the 11th grade. The Russian literature examination retained some semblance of propriety (of course, they copied from their textbooks, but where do students not crib!), but the mathematics examination was simply outrageous.

The teacher unseals the envelope of examination materials and the class immediately sits down to solve the problems. The class of 30-40 people, all adult and respectable, ranging in age from 35 to 50, waits. They - these working people - feel awkward. We teachers are already used to it, but at such moments, we too are upset. Finally, the teacher gets through the task. The assistant, using carbon paper, begins feverishly to duplicate the variants. The work is now in full swing and the class is laboring violently. At last, the examination ends and all of us - students and teachers - leave the school with an unpleasant feeling of resentment, with a heartache and with the mute question: why bother, who needs it? Our students do not obtain any knowledge! This means that it is only a matter of supplying them all with diplomas.

But if this is the case, then it can be done much more cheaply through the external studies department. A school like ours costs the state a pretty penny, but it does not do any good, only harm. Yes, we are paid to damage society. First of all, this involves moral damage: all the "studies" in a night school like ours are built on registrations and eyewash; secondly, material damage: reduced days, "sessions" (one week twice a year), examination leave. All this constitutes an enormous loss of working time, plus teachers' salaries, plus other expenses, while the result is nothing - two pieces of paper in a grey leatherette binder.

Now, about the way in which teachers spend their working time. As I have written, only a few individuals attend our classes - and that only until the second lesson: afterward, almost all of them leave; we "serve our time" in the 3rd, 4th and 5th lessons in empty classes throughout the academic year.

In extramural classes at teaching and consultation offices, things are even worse, and there are such UKP [teaching and consultation offices] in our school which are called "uninhabited", which means that there are never any students there. If someone does happen to show up, he is occupied with only one thing: copying from the "models" of "control materials". Each of these materials represents one half hour of teaching load (at the stage of 25-year service, this equals one ruble). That is how we earn this ruble. For those teachers who have no written control materials in their subject, but only oral examinations, it is even easier. They only have to write a grade of three in the class register and their ruble is already earned, since no one ever takes any examinations and, in any case, the students never appear when examinations are given.

Can we teachers in such night schools as ours be called teachers? The word teacher involves a reciprocal concept. There is no such thing as a teacher by himself. A teacher as a social entity becomes such only in the presence of a student. If there is no student, there is no teacher. A person who spends the greater part of his time "teaching" in empty classes cannot be called by this name. I am not saying that in a situation of such absence of control of great temptation, the possibility is opened to financial abuses.

It is impossible to explain to a rational mind the situation which has taken shape. The main contingent in night schools (the official designation is secondary school of working youth - SSbRM) is composed not of young people, but of middle-aged people. They do not want to study (even in the way people study in our school). We draw them in by means of promises, coercion (through management) and even deception.

Out of 1000 students, 350-400 people up to age 30 are recruited. Apparently, the night school must exist within these limits, but every year the Ministry of Education gives us a plan for 1000-900 people.

There are two night schools in our rayon. One of them was closed this year: closed or not, the recruitment plan for the rayon was not decreased. And again, the teachers have to drag people into night school by force. The plan is a great blessing of socialism, but it may also become a terribly destructive force, if it is established not by experts, but by quacks. It is precisely these concocted recruitment plans, uncoordinated with real needs and possibilities, which have brought the night school to what it has now become.

About recruitment. Everything depends on recruitment - your salary, first of all. If you have done your recruitment, you are given one and a half times the rate (180-240 rubles), if you have not done your recruitment, you will stay at the "bare rate" (100-180 rubles). You can conduct the worst possible classes, but if you have done your recruitment, you are a respected person. According to the school regulations, we teachers must implement recruitment through the organs of production. But we have already "selected", a long time ago, all those up to age 45 and there are no more. Both last year and this year, all the enterprises of our micro-rayon

indicated that we have no people subject to schooling requirements. But the plan was imposed on the school and it requires absolute fulfillment. Now, we are forced to go from apartment to apartment in all the nine-storey houses, in order to look for people who do not have a secondary education and induce them to register in school. It is only a matter of obtaining documents from a person so that it can be reported to the ministry that the recruitment plan has been fulfilled. And we walk... Where can we get them, these people who want to study? The worst of it is that because of these "dead souls" the real 500-600 people in the rayon with whom it is truly necessary to work are lost. All these examinations that no one has taken and all these classes that no one has conducted - all this consists of nothing more than registrations, for which they prosecute. It cannot go on like this! The night school in the form in which it now exists has become an immoral, asocial phenomenon and a hotbed of eyewash and direct forgery.

I consider that the first step which must be taken is a sharp and tangible reduction in the recruitment plan, in accordance with the real needs of each individual rayon and enterprise. At a time when the country is straining every muscle in its efforts to advance to the forefront of scientific and technical progress, the night school must not drag us backward.

From the Editors

In publishing this sharp and sometimes overly categorical letter from the teacher, Yu. Batutin, we can, at the same time, only share his anxiety regarding the present state of affairs in night schools. These questions are particularly urgent in connection with the discussion of the draft by the new editorial board of the CPSU Program, in which it states: "The party attaches great importance to developing the system of improvement of skills, which, together with external and night schooling, will establish favorable possibilities for all workers to continue their training, extend and renew their knowledge in an uninterrupted manner, and increase their general cultural and professional level constantly." The editors turn to our readers with the request to express their opinions about what the system of night education should be under conditions of the school reform and universal compulsory secondary education - what must be changed in it and what relinquished. We also await a reply from the USSR Ministry of Education.

12249

CSO: 1828/57

6 March 1986

DEMOGRAPHY

ARGUMENT TO IMPROVE STATUS OF MOTHERS WITH MANY CHILDREN

Moscow TRUD in Russian 24 Nov 85 p 2

[Article by V. Sysenko, candidate of philosophical sciences and senior scientific associate of the Moscow State University's Center on the Population: "The State and the Fam-"I"-ly: A Nation-wide Discussion is going on"; title and first sentence is play on words semya [family] and sem ya [seven I's]; capitalized passages printed in boldface]

[Text] The family is seven "I's." This is a popular saying. And at times the "I" is such a private matter. As a matter of fact, that is the way it is under capitalism. The well-being or distress of a family there, as is well known, is a purely personal concern. Things are different under our socialist order, where the ties binding the "seven I's" with society and the family with the state are extremely strong. Here is the wording from a new draft of the party's program: "The CPSU attaches enormous national significance to the intensification of concern for the family. The family plays an ever-increasingly more important role in strengthening the health and education of the younger generations, in maintaining the economic and social progress of society and in improving the demographic processes." The facts of our life are indicative of the step-by-step consistency with which this concern is becoming apparent, especially in recent times.

THE BARE FACTS

IN 1984, IN THE USSR NEARLY 2 MILLION APARTMENTS WERE BUILT--ROUGHLY AS MANY AS IN THE USA, GREAT BRITAIN, FRANCE, THE FRG AND CANADA PUT TOGETHER. EVERY YEAR IN THE COUNTRY 27,000 PEOPLE HAVE A HOUSE-WARMING PARTY. AND IN THE NEW 5-YEAR PLAN AND THE PERIOD UP TO THE BEGINNING OF THE NEW MILLENNIUM, AN EVEN HIGHER GOAL HAS BEEN PLANNED: TO ENSURE, FOR ALL PRACTICAL PURPOSES, THAT EVERY FAMILY WILL HAVE ITS OWN SEPARATE APARTMENT OR INDIVIDUAL HOUSE.

One of the world's most important problems of population is the reduction of the birth rate. As far as our country is concerned, our birth rate has basically decreased in recent years, especially over the last quarter of a century. Millions of families in the RSFSR, the Ukraine, Belorussia and the Baltic republics today have only one or two children and, consequently, are not capable of maintaining even the reproduction of the population. Only one thing can correct this situation--if roughly every fourth family has a third child.

It is precisely this third child who has become the hope and the most important goal and task of our demographic policies.

Why are there so many one-child families? Partly because, in spite of the measures already adopted, the standard of living for a family is lowered with the birth of each successive child. According to our conditional calculations, the support and upbringing of a child over the course of 18 years costs, in round figures, roughly from 17,000 to 25,000 rubles, depending on material circumstances. Add to this the increased expenditure of time for management of the household and for the care of the child and the corresponding reduction in free time--here you have the reasons for the oscillations on the theme "to have or not to have." Although, of course, at the same time, it is impossible to discount the incomparable happiness that motherhood and fatherhood give to people...

Yes, the measures being taken are serious, but the families, in which several children are growing up, for the time being are still in an economically less "advantageous" position than one-child families, and even more so than childless couples. But if, from the point of view of society and the state, parents with two, three or more children are making an immeasurably larger contribution to the future national property of the country than childless couples or one-child families, then it seems it would be in order, from the point of view of social justice, to compensate them as much as possible for their labors and efforts, with the aid of social and demographic policy measures, by means of family increments for the third child and later even for the second child, to gradually eliminate the difference in the standard of living for families with different numbers of children. The 12th 5-year plan and, even more so, the period up to the year 2000, of course, will smooth away this difference. But it seems that it would be correct to designate specific limits and short-term, practical goals for the demographic policies of the party and the state in the pre-congress documents. Indeed, this work is for the future. Its ponderable beginning has already been prescribed in the current 5-year plan. Let me remind you:

THE BARE FACTS

ONE-TIME GRANTS HAVE BEEN INTRODUCED FOR THE BIRTH OF A CHILD--TODAY THEY ARE EVEN BEING PAID OUT FOR THE FIRST THREE CHILDREN. THE GRANTS FOR MOTHERS WITH MANY CHILDREN HAVE BEEN INCREASED. THE DIFFICULT FATE OF SINGLE MOTHERS HAS BEEN MADE SOMEWHAT EASIER: APART FROM THE INCREASE IN THE MONTHLY GRANT, ITS PAYMENT PERIOD HAS BEEN EXTENDED TO THE CHILD'S 16TH BIRTHDAY, AND FOR A STUDENT NOT RECEIVING A STIPEND--UNTIL AGE 18. IN ADDITION, SINGLE MOTHERS, AS WELL AS FAMILIES WITH AN AVERAGE MONTHLY INCOME NOT EXCEEDING 60 RUBLES, ARE RELIEVED OF PAYMENT FOR THE SUPPORT OF CHILDREN IN PRE-SCHOOL INSTITUTIONS AND BOARDING SCHOOLS.

In fact, in this matter there are no trivialities--for those with a large family everything is important. This is why, along with the large-scale, radical measures which affect the basic vital interests of the family, also important are the not-so-large-scale, more modest ones, which have an effect on the family budget. For example, here are some that have become standard over the past few years.

THE BARE FACTS

- FREE (OR FOR 30 PERCENT OF COST) PASSES TO FAMILY HOTELS AND HOLIDAY HOMES;
- FREE OR SUBSTANTIALLY DISCOUNTED PASSES TO PIONEER CAMPS;
- FREE LUNCHES IN SCHOOL FOR CHILDREN FROM LARGE FAMILIES;
- FREE TEXTBOOKS FOR ALL SCHOOL-AGE CHILDREN.

However, the material side is not the only one needing consideration. Also very important are other things--increasing the prestige of mothers with many children and their social status and giving them all kinds of moral support. A mother with many children should have preference over a one-child mother in the immediate solution of the housing problem, in the everyday system and in the domestic services sphere. It is necessary that she feel the support of society and its attention towards her and her family in all things, even small ones.

There are things, which generally do not cost money, but which affect the attitude and the entire tenor of the life of a family with many children. Take, for example, a "trifle" such as lines. For some time now, in stores, tailor shops, laundries and various other types of stores--everywhere a person inevitably has to go, there have been small tables: Heroes of the Soviet Union, Heroes of Socialist Labor, deputies and participants in war are waited on without having to stand in line. But, in our opinion, it would be right to place mothers of many children on the same footing as these groups--even those who have this legitimate right do not always use it by far. Meanwhile, this is demanded by simple humanity and the main principle of our society--social justice. Proceeding precisely from this principle, families with many children and young families have been singled out into a special category in the pre-congress documents. In the wording of the new draft of the party program it is stated clearly: the party considers it necessary to expand the steps directed at improving the material, housing and living conditions of families with many children.

We know that the word of the party is firm and that there can be no doubts, this is the way it is going to be. But, besides the party and state measures, it is still necessary that every person realize their necessity--in other words, that a change for the better is needed in the social consciousness with respect to families with many children. To raise the prestige of motherhood is not simply humane, but in the interests of our entire society and its future. By easing the concerns which lie like a heavy burden on the shoulders of a mother with many children, by raising her prestige and by surrounding her with respect and concern, we will be contributing to that demographic improvement that is vitally necessary for our state.

12752

CSO: 1828/42

DEMOGRAPHY

REPUBLIC STATISTICS ON FAMILIES WITH CHILDREN TO AGE 16

Moscow VESTNIK STATISTIKI in Russian No 12, Dec 85 pp 73-74

II. Distribution of Families According To Number of Children Up To Age 16
(By Union Republics)

(Based upon data obtained in a one-time sampling of 310,000 families of blue-collar workers, white-collar workers and kolkhoz members taken in September 1984; results expressed in percentages.)

1. Families of Blue-Collar and White-Collar Workers

<u>Geographic Area</u>	<u>Total of families with children to age 16</u>	<u>of these, families having: (number of children under 16)</u>				
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5 or more</u>
USSR - total	100	53.6	35.6	6.7	2.2	1.9
- urban areas	100	57.2	35.5	5.1	1.3	0.9
- rural areas	100	41.1	36.1	12.2	5.4	5.2
RSFSR - total	100	58.5	35.7	4.6	0.8	0.4
- urban areas	100	60.8	34.8	3.6	0.5	0.3
- rural areas	100	47.7	39.5	9.2	2.3	1.3
Ukrainian SSR - total	100	59.2	35.8	4.2	0.6	0.2
- urban areas	100	60.4	35.3	3.6	0.5	0.2
- rural areas	100	51.5	38.6	7.9	1.4	0.6
Belorussian SSR- total	100	53.2	40.0	5.6	0.8	0.4
- urban areas	100	55.7	39.4	4.3	0.5	0.1
- rural areas	100	43.2	42.2	10.9	2.1	1.6
Uzbek SSR - total	100	28.0	29.7	17.3	12.1	12.9
- urban areas	100	33.3	33.9	15.6	8.9	8.3
- rural areas	100	19.9	23.2	19.9	17.0	20.0

		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5 or more</u>
Kazakh SSR - total	100	40.1	37.1	12.7	5.4	4.7
- urban areas	100	46.1	39.2	9.6	3.3	1.8
- rural areas	100	30.0	33.8	17.8	8.9	9.5
Georgian SSR - total	100	41.6	43.4	12.3	2.3	0.4
- urban areas	100	42.4	44.9	10.6	1.7	0.4
- rural areas	100	39.7	39.8	16.2	3.5	0.8
Azerbaijan SSR - total	100	33.1	30.6	19.1	9.9	7.3
- urban areas	100	36.4	34.4	17.9	7.8	3.5
- rural areas	100	27.4	24.0	21.0	13.6	14.0
Lithuanian SSR - total	100	53.8	38.2	5.8	1.6	0.6
- urban areas	100	55.8	38.2	4.7	1.1	0.2
- rural areas	100	43.8	38.0	11.6	4.1	2.5
Moldavian SSR - total	100	47.9	39.8	8.8	3.0	0.5
- urban areas	100	53.8	39.7	5.0	1.2	0.3
- rural areas	100	41.1	40.0	13.2	5.0	0.7
Latvian SSR - total	100	59.2	34.9	4.8	0.7	0.4
- urban areas	100	61.6	34.0	3.5	0.6	0.3
- rural areas	100	50.4	38.2	9.5	1.1	0.8
Kirghiz SSR - total	100	33.3	33.1	16.2	9.0	8.4
- urban areas	100	41.6	35.7	13.7	5.8	3.2
- rural areas	100	23.1	26.9	14.5	13.1	14.8
Tajik SSR - total	100	24.8	26.9	14.5	13.7	20.1
- urban areas	100	31.8	32.8	13.5	9.8	12.1
- rural areas	100	15.6	19.1	15.9	18.9	30.5
Armenian SSR - total	100	34.0	40.5	19.6	4.4	1.5
- urban areas	100	34.5	43.1	18.0	3.4	1.0
- rural areas	100	32.7	33.5	23.8	6.9	3.1
Turkmen SSR - total	100	30.6	27.1	18.7	12.3	11.3
- urban areas	100	32.8	28.8	18.5	11.1	8.8
- rural areas	100	23.4	21.4	19.3	16.4	19.5
Estonian SSR - total	100	53.3	38.8	6.0	1.4	0.5
- urban areas	100	55.4	37.8	5.2	1.1	0.5
- rural areas	100	44.8	42.9	9.1	2.8	0.4

2. Families of Kolkhoz Members

<u>Geographical Area</u>	<u>Total of families with children to age 16</u>	<u>of these, families having: (number of children under 16)</u>				
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5 or more</u>
USSR	100	38.0	32.2	14.0	7.7	8.1
RSFSR	100	45.4	37.7	11.6	3.4	1.9
Ukrainian SSR	100	48.6	36.7	10.5	2.9	1.3
Belorussian SSR	100	47.4	34.2	12.2	4.7	1.5
Uzbek SSR	100	14.9	18.1	19.7	20.4	26.9
Kazakh SSR	100	23.7	28.2	20.6	12.7	14.8
Georgian SSR	100	41.3	36.3	16.9	5.1	0.4
Azerbaijan SSR	100	25.2	26.8	21.1	12.4	13.5
Lithuanian SSR	100	44.6	34.5	15.3	3.9	1.7
Moldavian SSR	100	41.7	38.0	14.8	4.0	1.5
Latvian SSR	100	47.3	37.6	10.7	2.7	1.7
Kirghiz SSR	100	21.8	23.0	20.3	16.5	18.4
Tajik SSR	100	13.7	19.1	15.4	16.5	35.3
Armenian SSR	100	31.5	30.4	23.6	9.9	4.6
Turkmen SSR	100	18.0	18.4	19.5	18.8	25.3
Estonian SSR	100	41.9	38.1	13.8	3.6	2.6

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